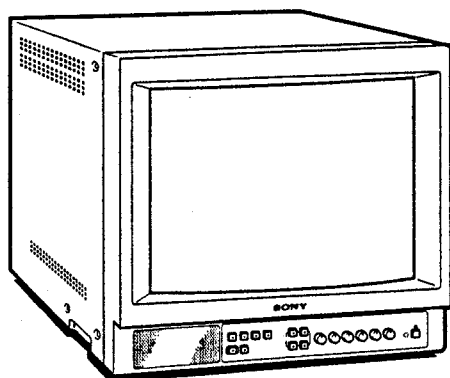
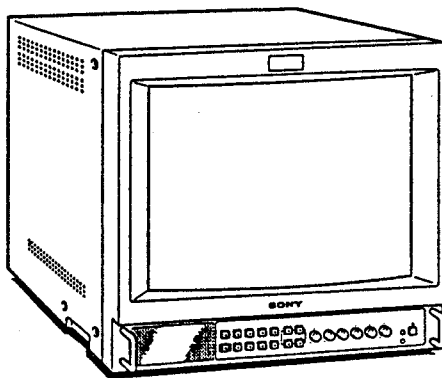


# PVM-1450QM/1454QM

## SERVICE MANUAL



PVM-1450QM



PVM-1454QM

### AEP Model

PVM-1450QM:

Chassis No. SCC-G62C-A

PVM-1454QM:

Chassis No. SCC-G62B-A

### SPECIFICATIONS (PVM-1450QM)

#### Video signal

Color system	PAL, SECAM, NTSC, NTSC <sub>4.43</sub>
Resolution	450 TV lines
Aperture correction	0 dB – +6.0 dB
Frequency response	LINE 9.0 MHz (–3 dB) RGB 10.0 MHz (–3 dB)
Synchronization	AFC time constant 1.0 msec.

#### Picture performance

Normal scan	7% over scan of CRT effective screen area
H. linearity	Less than 8.0% (typical)
V. linearity	Less than 7.0% (typical)
Raster size stability	H: 1.0%, V: 1.5%
High voltage regulation	3.5%
CRT	P22 phosphor
Color temperature	6,500K

#### Inputs and Outputs

Inputs	Y/C IN: 4-pin mini DIN connector (See the pin assignment.) VIDEO IN: BNC connector 1Vp-p $\pm$ 6 dB, sync negative AUDIO IN: phono jack, –5 dBs, more than 47k ohms R, G, B IN: BNC connector 0.7 Vp-p, $\pm$ 6 dB Sync on green: 0.3 Vp-p, negative, 75 ohms terminated RGB SYNC IN: BNC connector Composite sync 4 Vp-p, $\pm$ 6 dB, negative
--------	--

Loop-through outputs	Y/C OUT: 4-pin mini DIN connector VIDEO OUT: BNC connector, 75 ohms terminated AUDIO OUT: phono jack Output level 0.8 W
Speaker output	

#### General

Power consumption	90 Wh
Power requirements	100 – 240 V AC, 50/60 Hz
Operating temperature range	0 – 35°C
Storage temperature range	–10 – +40°C
Humidity	0 – 90%
Dimensions	Approx. 346 × 340 × 411.5 mm (w/h/d) (13 <sup>5</sup> / <sub>8</sub> × 13 <sup>1</sup> / <sub>2</sub> × 16 <sup>1</sup> / <sub>4</sub> inches) not incl. projecting parts and controls
Mass	Approx. 16.7 kg (36 lb 14 oz)
Accessory supplied	AC power cord (1) AC plug holder (1)

— Continued on page 2 —

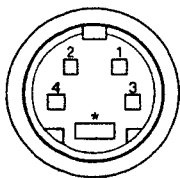


TRINITRON® COLOR VIDEO MONITOR  
**SONY®**

# PVM-1450QM/1454QM

## Pin assignment

### Y/C IN connector (4-pin mini DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

Design and specifications are subject to change without notice.

## SPECIFICATIONS (PVM-1454QM)

### Video signal

Color system	PAL, SECAM, NTSC, NTSC <sub>4.43</sub>
Resolution	600 TV lines
Aperture correction	0 dB - +6.0 dB
Frequency response	LINE 9.0 MHz (-3 dB) RGB 10.0 MHz (-3 dB)
Synchronization	AFC time constant 1.0 msec.

### Picture performance

Normal scan	7% over scan of CRT effective screen area
Underscan	5% underscan of CRT effective screen area
H. linearity	Less than 8.0% (typical)
V. linearity	Less than 7.0% (typical)
Convergence	Central area: 0.6 mm (typical) Peripheral area: 0.8 mm (typical)
Raster size stability	H: 1.0%, V: 1.5%
High voltage regulation	3.5%
CRT	EBU phosphor
Color temperature	6,500K/9,300K (+8MPCD), selectable USER (3200K-10000K, factory setting is 6500K)

### Inputs and Outputs

Inputs	Y/C IN: 4-pin mini DIN connector (See the pin assignment on the next page.) VIDEO IN: BNC connector 1Vp-p ±6 dB, sync negative AUDIO IN: phono jack, -5 dBs, more than 47k ohms R/R-Y, G/Y, B/B-Y IN: BNC connector
--------	--

R, G, B channels: 0.7 Vp-p, ±6 dB  
Sync on green: 0.3 Vp-p, negative, 75 ohms terminated  
R-Y, B-Y channels: 0.7 Vp-p, ±6 dB  
Y channel: 0.7 Vp-p, ±6 dB  
(Standard color bar signal of 75% chrominance)  
EXT SYNC IN: BNC connector  
Composite sync 4 Vp-p, ±6 dB, negative

### Loop-through outputs

Y/C OUT: 4-pin mini DIN connector
VIDEO OUT: BNC connector, 75 ohms terminated
AUDIO OUT: phono jack
R/R-Y, G/Y, B/B-Y OUT: BNC connector, 75 ohms terminated
EXT SYNC OUT: BNC connector, 75 ohms terminated
REMOTE: 20-pin connector (See the pin assignment on the next page.)
Output level 0.8 W

### Remote input

### Speaker output

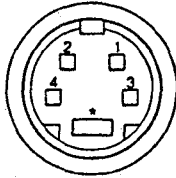
### General

Power consumption	99 Wh (incl. SDI) 90 Wh (without. SDI)
Power requirements	100 - 240 V AC, 50/60 Hz
Operating temperature range	0 - 35°C
Storage temperature range	-10 - +40°C
Humidity	0 - 90%
Dimensions	Approx. 346 × 340 × 411.5 mm (w/h/d) (13 3/8 × 13 1/2 × 16 1/4 inches) not incl. projecting parts and controls

Mass Approx. 16.7 kg (36 lb 14 oz)  
PVM-2054QM  
Accessory supplied AC power cord (1)  
AC plug holder (1)  
Tally label (1)  
Cable with a 20-pin connector (1)

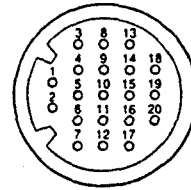
### Pin assignment

#### Y/C IN connector (4-pin mini DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

#### REMOTE connector (20-pin)



Pin No.	Signal	Wire color
1	Blue only	Brown
2	H/V DELAY	Red
3	MAIN/SUB*	Orange
4	EXT SYNC	Yellow
5	DEGAUSS	Green
6	R ch ON/OFF*	Blue
7	TALLY	Purple
8	LINE B	Grey
9	GND	White
10	GND	Black
11	GND	Pink
12	GND	Light Blue
13	LINE A	Spiral Orange
14	LINE/RGB	Spiral Yellow
15	GND	Spiral Green
16	L ch ON/OFF*	Spiral Blue
17	REMOTE	Spiral Purple
18	LINE C	Spiral Grey
19	UNDER SCAN	Spiral Pink
20	16:9	Spiral Light Blue

(\* For digital audio control)

Design and specifications subject to change without notice.

# TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>			<b>5. CIRCUIT ADJUSTMENTS</b>		
1-1.	General of PVM-1450QM .....	5	5-1.	A Board Adjustments .....	31
1-2.	General of PVM-1454QM .....	11	5-2.	G Board Adjustment .....	41
<b>2. DISASSEMBLY</b>			<b>6. DIAGRAMS</b>		
2-1.	Top Cover and Rear Cover Removal .....	19	6-1.	Block Diagrams (1) .....	43
2-2.	Terminal Board Removal .....	19		Block Diagrams (2) .....	48
2-3.	Picture Tube Removal .....	20	6-2.	Frame Schematic Diagram .....	53
<b>3. SET-UP ADJUSTMENTS</b>			6-3.	Circuit Boards Location .....	55
3-1.	Preparations (1) .....	21	6-4.	Printed Wiring Boards and Schematic Diagrams .....	55
	Preparations (2) .....	23		• A Board (1/3) .....	63
3-2.	Writing Model Data .....	23		• A Board (2/3) .....	68
3-3.	Picture Output .....	23		• A Board (3/3) .....	73
3-4.	Landing Adjustment .....	23		• Q Board .....	78
3-5.	Convergence Adjustment .....	24		• G Board .....	80
3-6.	Deflection Yoke Neck Rotation Adjustment .....	25		• J Board .....	82
3-7.	G2 Adjustment .....	26		• X Board .....	82
3-8.	White Balance Adjustment .....	26		• H Board .....	82
3-9.	Blue-Only White Balance Adjustment .....	27		• C Board .....	83
3-10.	Sub Brt Adjustment .....	27	6-5.	Semiconductors .....	89
3-11.	Focus Adjustment .....	27	<b>7. EXPLODED VIEWS</b>		
<b>4. SAFETY RELATED ADJUSTMENT</b> .....		29	7-1.	Chassis .....	91
			7-2.	Picture Tube .....	92
			<b>8. ELECTRICAL PARTS LIST</b> .....		93

## (CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

## WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

## SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

### 1-1. GENERAL OF PVM-1450QM

## Features

#### **Fine Pitch Trinitron picture tube**

Fine Pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 450 TV lines at the center of the picture.

#### **Four color systems available**

The monitor can display PAL, SECAM, NTSC and NTSC4.43\* signals. The appropriate color system is selected automatically.

\* A signal of NTSC4.43 is used for playing back NTSC recorded video cassettes with a video tape recorder/player especially designed for use with this system.

#### **Analog RGB input connectors**

Analog RGB signals from video equipment can be input through these connectors.

#### **Y/C input connectors**

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

#### **Beam current feedback circuit**

The built-in beam current feedback circuit assures stable white balance.

#### **Comb filter**

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

#### **Automatic termination (connector with mark only)**

The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohms termination is automatically released.

#### **Blue only mode**

In the blue only mode, an apparent monochrome display is obtained with all three cathodes driven with a blue signal. This facilitates color saturation and phase adjustments and observation of VCR noise.

#### **Auto/manual degaussing**

Degaussing of the screen can be performed automatically when the power is turned on, or manually by pressing the DEGAUSS button.

#### **On-screen menus**

You can set CHROMA SET UP and other settings by using the on-screen menus.

#### **Five menu languages**

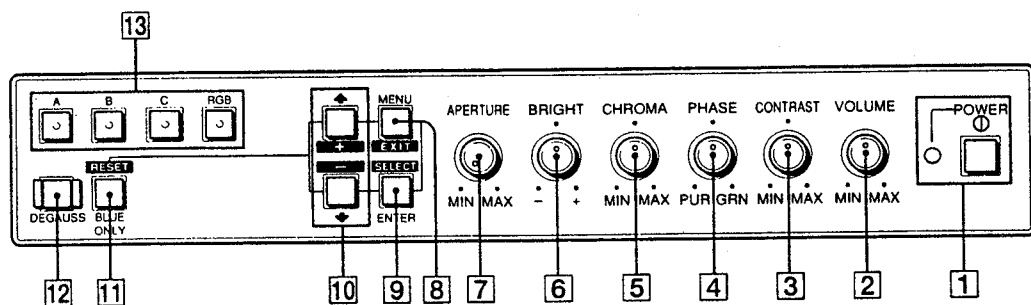
You can select the menu language from among the five languages on the menu.

#### **EIA standard 19-inch rack mounting**

By using an MB-502B mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the mounting bracket kit.

# Location and function of parts and controls

## Front panel



### 1 POWER switch and indicator

Depress to turn the monitor on. The indicator will light up in green.

### 2 VOLUME control

Turn this control clockwise or counterclockwise to obtain the desired volume.

### 3 CONTRAST control

Turn clockwise to make the contrast higher and counterclockwise to make it lower.

### 4 PHASE control

This control is effective only for the NTSC and NTSC<sub>4.43</sub> color systems. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

### 5 CHROMA control

Turn clockwise to make the color intensity higher and counterclockwise to make it lower.

### 6 BRIGHT (brightness) control

Turn clockwise for more brightness and counterclockwise for less.

### 7 APERTURE control

Turn clockwise for more sharpness and counterclockwise for less.

### Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of RGB signals.

### 8 MENU (EXIT) button

Press to make the menu appear. Press to return to the previous screen in the menu.

### 9 ENTER (SELECT) button

Press to decide a selected item in the menu.

### 10 ↑ (+) / ↓ (-) buttons

Press to move the cursor (▶) or adjust selected value in the menu.

### 11 BLUE ONLY selector RESET button

Press (light on) to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase\*" control adjustments and observation of VCR noise.

\* "Phase" control adjustment is effective only for the NTSC signals.

Press to reset the setting in the menu.

### 12 DEGAUSS button

Press this button momentarily. The screen will be demagnetized. Wait for 10 minutes or more before activating this button again.

### 13 input select buttons

Press (light on) to select the program to be monitored.

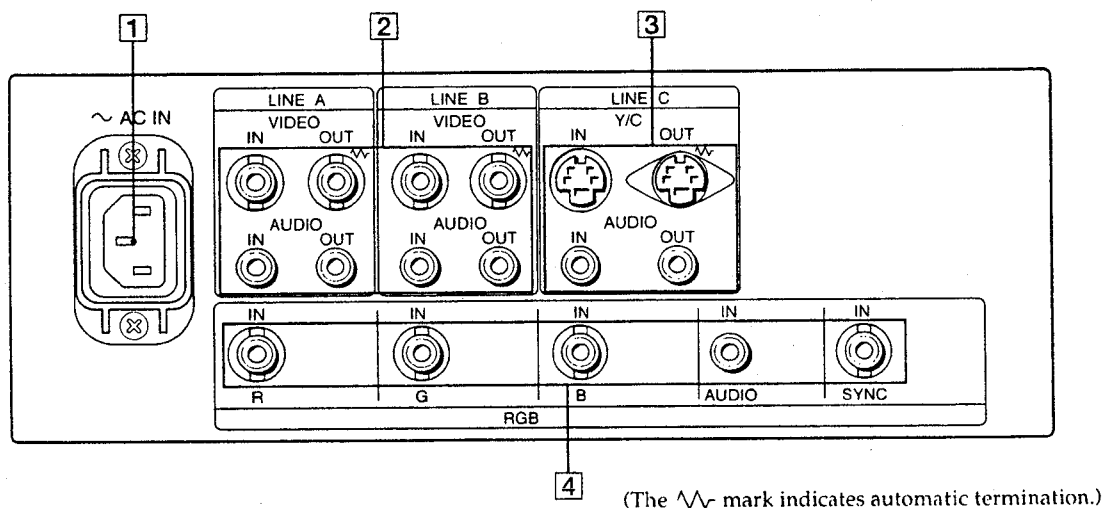
**A:** for a signal fed through the LINE A connectors.

**B:** for a signal fed through the LINE B connectors.

**C:** for a signal fed through the LINE C connectors.

**RGB:** for a signal fed through the RGB connectors.

## Rear panel



### 1 AC IN socket

Connect the supplied AC power cord to this socket and to a wall outlet.

### 2 LINE A, LINE B connectors

Two groups (A and B) of line input connectors for the composite video and audio signals and their loop-through output connectors.

To monitor the input signal fed through these connectors, press the A or B button (light on) on the front panel.

#### VIDEO IN (BNC)

Connect to the video output of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output of another monitor.

#### VIDEO OUT (BNC)

Loop-through output of the VIDEO IN connector. Connect to the video input for a VCR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

#### AUDIO IN (phono jack)

Connect to the audio output of a VCR or to a microphone via a suitable microphone amplifier. For a loop-through connection, connect to the audio output of another monitor.

#### AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN jack. Connect to the audio input of a VCR or another monitor.

### 3 LINE C connectors

#### Y/C IN (4pin mini DIN)

Connect to the Y/C separate output of a video camera, VCR or other video equipment.

#### Y/C OUT (4pin mini DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input of a VCR or another monitor. When the cable is connected to this connector the 75-ohms termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

#### AUDIO IN (phono jack)

Connect to the audio output of a VCR or a microphone (through a suitable microphone amplifier).

#### AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input of a VCR or another monitor.

### 4 RGB IN connectors

Connect to the analog RGB outputs of a video camera. To monitor the input signal fed through these connectors, press RGB button (light on) on the front panel.

#### R IN, G IN, B IN (BNC)

When you set RGB SYNC to SYNC ON G in the menu, the monitor operates on the sync signal from the G channel.

#### AUDIO IN (phono jack)

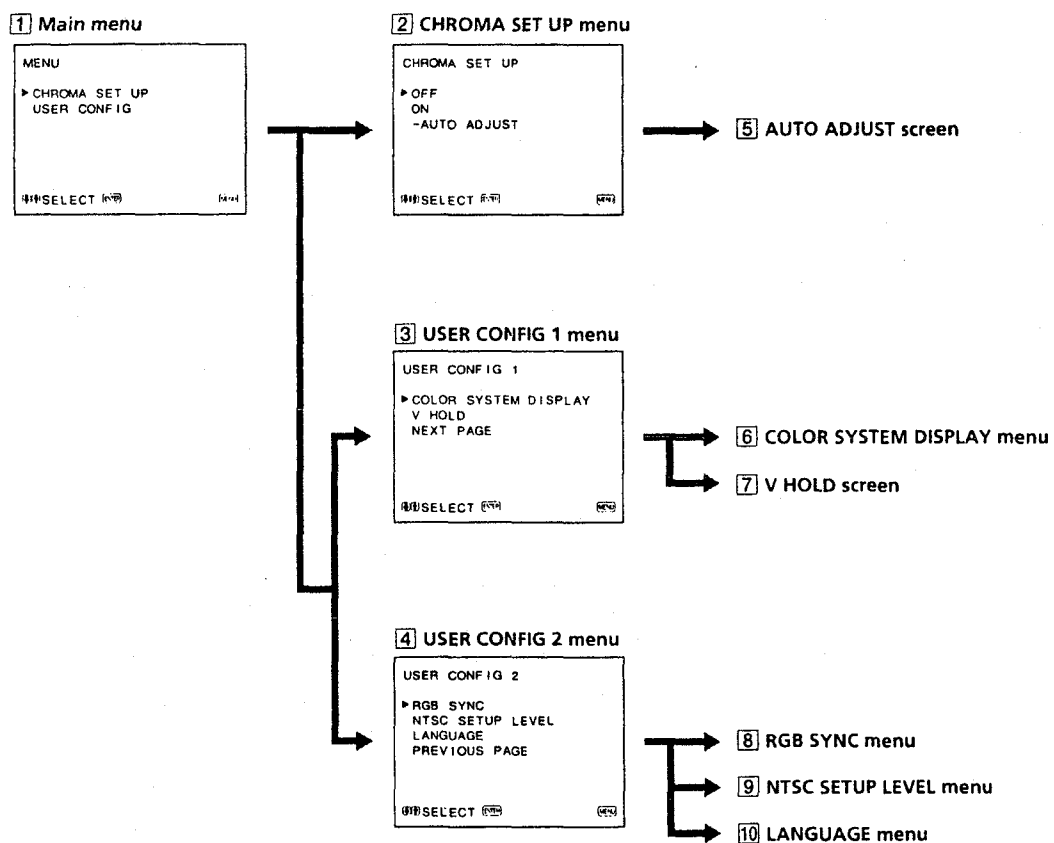
Connect to the audio output of video equipment when the analog RGB signal is input.

#### SYNC IN (BNC)

To use the sync signal fed through this connector, set RGB SYNC to EXT SYNC in the menu.

# Using on-screen menus

The flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. The boxed number is for instructions on the next page.



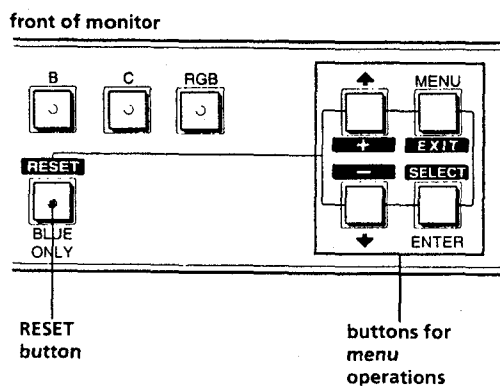
## Operating through menus

There are five buttons for menu operations on the front of the monitor. To display the main menu, first press MENU. The buttons you can use appear at the bottom of the menu screen.

### Functions of the buttons

Button	To select menu item	To adjust menu item selected
<b>MENU</b> <b>EXIT</b>	return to the previous menu	return to the previous menu
<b>ENTER</b> <b>SELECT</b>	decide a selected item	select an item
<b>↑</b> <b>+</b>	move the cursor (▶) upwards	increase selected value
<b>↓</b> <b>-</b>	move the cursor (▶) downwards	decrease selected value
<b>RESET</b>		reset current adjustment value to the factory setting

(The above items in white type correspond to the marks in the menu.)



#### 1 Main menu

Select an item and press ENTER to go to the following menu.

#### 2 CHROMA SET UP menu

Set to ON to adjust the internal decoder for CHROMA and PHASE after AUTO ADJUST ([5]). [OFF]

#### 3 USER CONFIG 1 menu

Select an item to adjust. To go to the USER CONFIG 2 menu select NEXT PAGE.

#### 4 USER CONFIG 2 menu

Select an item to adjust. To go to the USER CONFIG 1 menu select PREVIOUS PAGE.

#### 5 AUTO ADJUST screen

Select the color bar signal (full, SMPTE, EIA) and press ENTER to start auto adjusting for CHROMA SET UP (NTSC signal only).

#### 6 COLOR SYSTEM DISPLAY menu

Select the color system display mode. In AUTO, the kind of color system being used appears on the screen each time you change the signal input. [AUTO]

#### 7 V HOLD screen

Adjust the vertical hold if the picture rolls vertically. When you cannot read the display, select the input that is not connected.

#### 8 RGB SYNC menu

Select SYNC ON G to operate the monitor on the sync signal from the displayed green signal. Select EXT SYNC to operate the monitor on an external sync signal fed through the RGB SYNC connector. [SYNC ON G]

#### 9 NTSC SETUP LEVEL menu

Select the NTSC setup level from two modes. The 7.5 setup level is mainly used in north America. The 0 setup level is mainly used in Japan. [0]

#### 10 LANGUAGE menu

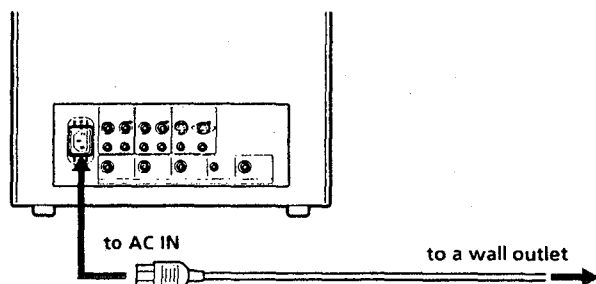
You can select the menu language from among the five languages (English, German, French, Italian, Spanish) on the menu. [ENGLISH]

([ ]) indicates the factory setting position.)

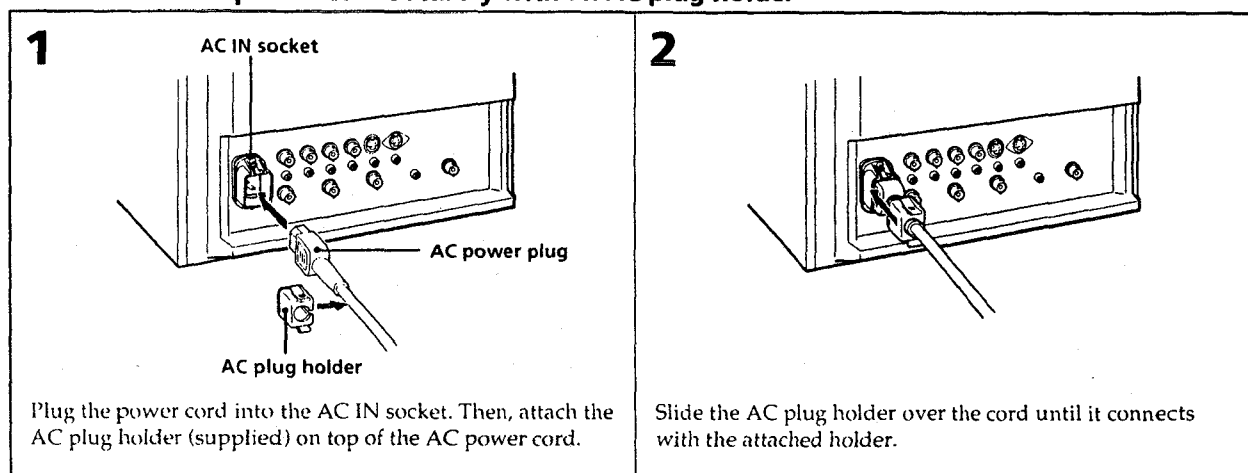
# Power sources

## House current

Connect the AC power cord (supplied) to the AC IN socket and to a wall outlet.



To connect an AC power cord securely with an AC plug holder



**To remove the AC power cord**

Pull out AC plug holder by squeezing the left and right sides.

## Features

### HR (High Resolution) Trinitron picture tube

HR Trinitron tube provides a high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture.

### Four color systems available

The monitor can display PAL, SECAM, NTSC and NTSC4.43\* signals. The appropriate color system is selected automatically.

- \* A signal of NTSC4.43 is used for playing back NTSC recorded video cassettes with a video tape recorder/player especially designed for use with this system.

### Blue only mode

In the blue only mode, an apparent monochrome display is obtained with all three cathodes driven with a blue signal. This facilitates color saturation and phase adjustments and observation of VCR noise.

### Analog RGB/component input connectors

Analog RGB or component (Y, R-Y and B-Y) signals from video equipment can be input through these connectors.

### Y/C input connectors

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

### Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

### Comb filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

### Automatic termination (connector with mark only)

The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohms termination is automatically released.

### Underscan mode

The signal normally scanned outside of the screen can be monitored in the underscan mode.

#### Note

When the monitor is in the underscan mode, the dark RGB scanning lines may appear on the top edge of the screen. These are caused by an internal test signal, rather than the input signal.

### Horizontal/vertical delay mode

The horizontal and vertical sync signals can be checked simultaneously in the H/V delay mode.

### External sync input

When the EXT SYNC selector is in the on position, the monitor can be operated on the sync signal supplied from an external sync generator.

### Auto/manual degaussing

Degaussing of the screen can be performed automatically when the power is turned on, or manually by pressing the DEGAUSS button.

### On-screen menus

You can set color temperature, CHROMA SET UP, and other settings by using the on-screen menus.

### Five menu languages

You can select the menu language from among the five languages on the menu.

### EIA standard 19-inch rack mounting

By using an MB-502B (for PVM-1454QM) or SLR-103 (for PVM-2054QM) mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the mounting bracket kit.

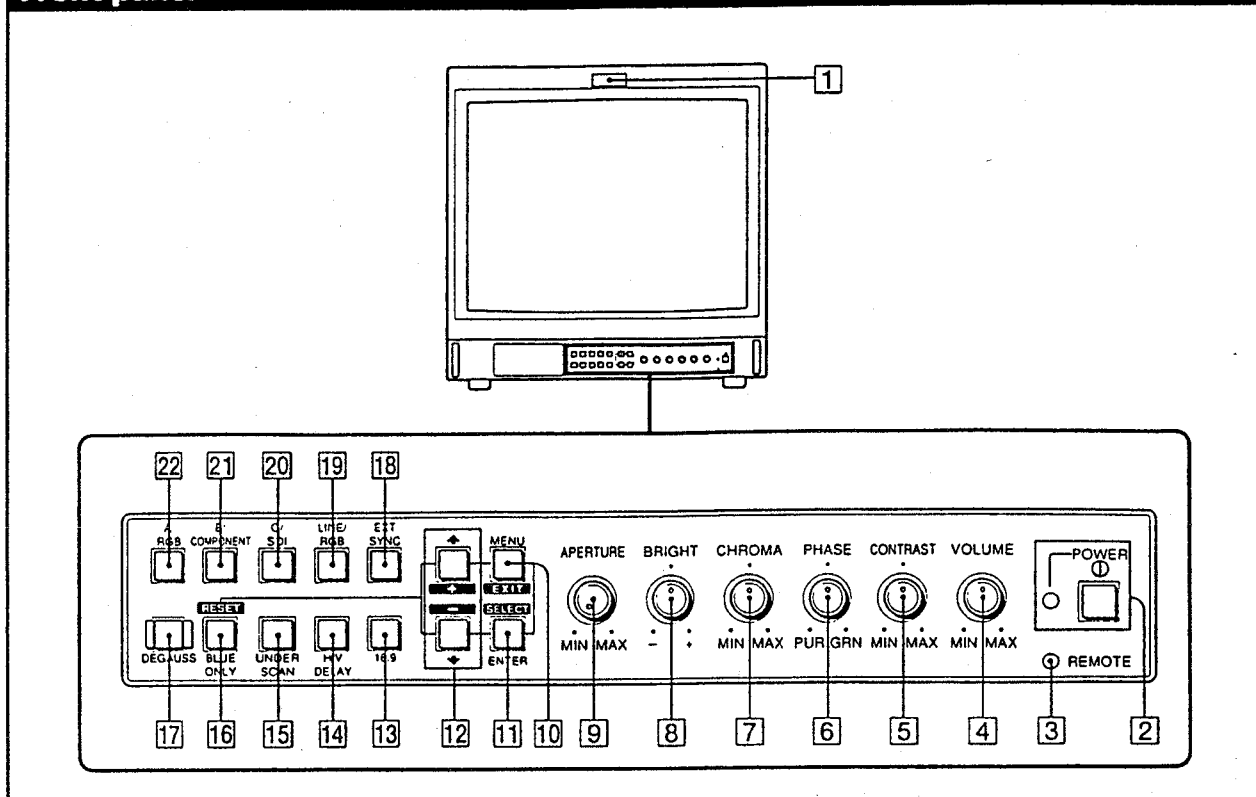
### SDI (Serial Digital Interface) kit

By using SDI kit, the monitor can display SMPTE 259M 4:2:2 serial digital signal from a digital VTR. (ex. Sony 4:2:2 VTR)

SDI kit: 4:2:2 digital video board  
Digital audio board

# Location and function of parts and controls

## Front panel



### 1 Tally lamp

Lights up when the video camera connected to this monitor is selected, indicating that the picture is being recorded.

### 2 POWER switch and indicator

Depress to turn the monitor on. The indicator will light up in green.

### 3 REMOTE indicator

Lights up when you set USER PRESET to ON in the menu, or when you connect a supplied cable to REMOTE connector (No. 17 pin is ground). The controls on the front panel do not work when this indicator lights up.

### 4 VOLUME control

Turn this control clockwise or counterclockwise to obtain the desired volume.

### 5 CONTRAST control

Turn clockwise to make the contrast higher and counterclockwise to make it lower.

### 6 PHASE control

This control is effective only for the NTSC and NTSC4.43 color systems. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

### 7 CHROMA control

Turn clockwise to make the color intensity higher and counterclockwise to make it lower.

### 8 BRIGHT (brightness) control

Turn clockwise for more brightness and counterclockwise for less.

### 9 APERTURE control

Turn clockwise for more sharpness and counterclockwise for less.

### Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of RGB signals.

### 10 MENU (EXIT) button

Press to make the menu appear. Press to return to the previous screen in the menu.

### 11 ENTER (SELECT) button

Press to decide a selected item in the menu.

### 12 ↑ (+)/ ↓ (-) buttons

Press to move the cursor (►) or adjust selected value in the menu.



**13 16:9 selector**

Press (light on) for the signal of 16:9 picture.

**14 H/V DELAY selector**

Press (light on) to observe the horizontal and vertical sync signals at the same time.  
The horizontal sync signal is displayed in the left quarter of the screen; the vertical sync signal is displayed near the center of the screen.

**15 UNDER SCAN selector**

Press (light on) for underscanning. The display size is reduced by approximately 5% so that four corners of the raster are visible.

**16 BLUE ONLY selector**

**RESET button**

Press (light on) to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase\*" control adjustments and observation of VCR noise.

\* "Phase" control adjustment is effective only for the NTSC signals.

Press to reset the setting in the menu.

**17 DEGAUSS button**

Press this button momentarily. The screen will be demagnetized. Wait for 10 minutes or more before activating this button again.

**18 EXT SYNC (external sync) selector**

Keep this button in the off position (light off) to operate the monitor on the sync signal from the displayed video signal.

Keep this button in the on position (light on) to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel.

**19 LINE/RGB input selector**

Select the program to be monitored. Keep this button in the off position (light off) to feed a signal through the LINE A, LINE B or LINE C connectors. Keep this button in the on position (light on) to feed a signal through the RGB connectors.

**20 C/SDI selector**

When the LINE/RGB input selector is set to LINE (light off), press this button (light on) to feed a signal through the LINE C connectors.

When the LINE/RGB input selector is set to RGB (light on), press this button (light on) to feed the SDI signal (optional board is needed).

**21 B/COMPONENT selector**

When the LINE/RGB input selector is set to LINE (light off), press this button (light on) to feed a signal through the LINE B connectors.

When the LINE/RGB input selector is set to RGB (light on), press this button (light on) to feed the component signal.

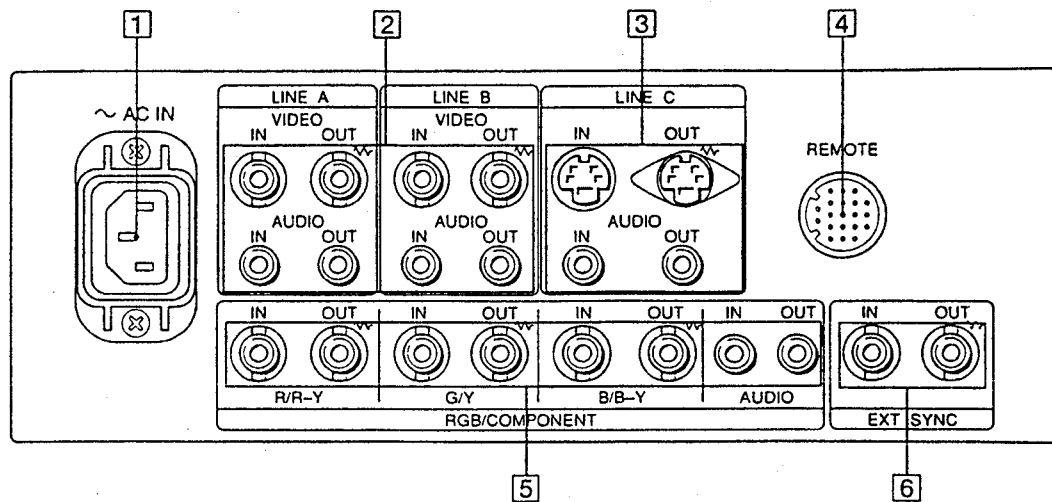
**22 A/RGB selector**

When the LINE/RGB input selector is set to LINE (light off), press this button (light on) to feed a signal through the LINE A connectors.

When the LINE/RGB input selector is set to RGB (light on), press this button (light on) to feed the RGB signal.

## Location and function of parts and controls

### Rear panel



(The  $\nabla$  mark indicates automatic termination.)

#### 1 AC IN socket

Connect the supplied AC power cord to this socket and to a wall outlet.

#### 2 LINE A, LINE B connectors

Two groups (A and B) of line input connectors for the composite video and audio signals and their loop-through output connectors.

To monitor the input signal fed through these connectors, keep the LINE/RGB selector in the LINE position (light off) and press the A/RGB or B/COMPONENT selector (light on) on the front panel.

##### VIDEO IN (BNC)

Connect to the video output of a video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output of another monitor.

##### VIDEO OUT (BNC)

Loop-through output of the VIDEO IN connector. Connect to the video input for a VCR or another monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

#### AUDIO IN (phono jack)

Connect to the audio output of a VCR or to a microphone via a suitable microphone amplifier. For a loop-through connection, connect to the audio output of another monitor.

#### AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN jack. Connect to the audio input of a VCR or another monitor.

#### 3 LINE C connectors

##### Y/C IN (4pin mini DIN)

Connect to the Y/C separate output of a video camera, VCR or other video equipment.

##### Y/C OUT (4pin mini DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input of a VCR or another monitor. When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

##### AUDIO IN (phono jack)

Connect to the audio output of a VCR or a microphone (through a suitable microphone amplifier).

##### AUDIO OUT (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input of a VCR or another monitor.

#### **4 REMOTE connector (20pin)**

Connect to the tally output of a control console, special-effect generator, etc. The tally lamp on the front panel will be turned on and off by the connected equipment. This connector can be used for connecting a remote controller. For the pin assignment of this connector, see "Specifications" on page 10.

#### **5 RGB/COMPONENT connectors**

RGB signal or component signal input connectors and their loop-through output connectors.

To monitor the input signal fed through these connectors, keep the LINE/RGB selector in the RGB position (light on), and press the A/RGB or B/COMPONENT selector (light on) on the front panel.

##### **R/R-Y IN, G/Y IN, B/B-Y IN (BNC)**

When the EXT SYNC selector on the front panel is in the off position (light off), the monitor operates on the sync signal from the G/Y channel.

##### **To monitor the RGB signal**

Connect to the analog RGB signal outputs of a video camera.

##### **To monitor the component signal**

Connect to the R-Y/Y/B-Y component signal outputs of a Sony Betacam video camera.

##### **R/R-Y OUT, G/Y OUT, B/B-Y OUT (BNC)**

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-Y IN connectors

##### **For RGB signal**

Connect to the analog RGB signal inputs of a video printer or another monitor.

##### **For component signal**

Connect to the R-Y/Y/B-Y component signal inputs of a Betacam video recorder.

When the cables are connected to these connectors, the 75-ohms termination of the inputs is automatically released, and the signal inputs to the R/R-Y IN, G/Y IN, B/B-Y IN connectors are output from these connectors.

##### **AUDIO IN (phono jack)**

Connect to the audio output of video equipment when the analog RGB or component signal is input.

##### **AUDIO OUT (phono jack)**

Loop-through outputs of the AUDIO IN connector.

#### **6 EXT SYNC (external sync) connectors**

To use the sync signal fed through this connector, press the EXT SYNC selector (light on).

##### **IN (BNC)**

When this monitor operates on an external sync signal, connect the reference signal from a sync generator to this connector.

##### **OUT (BNC)**

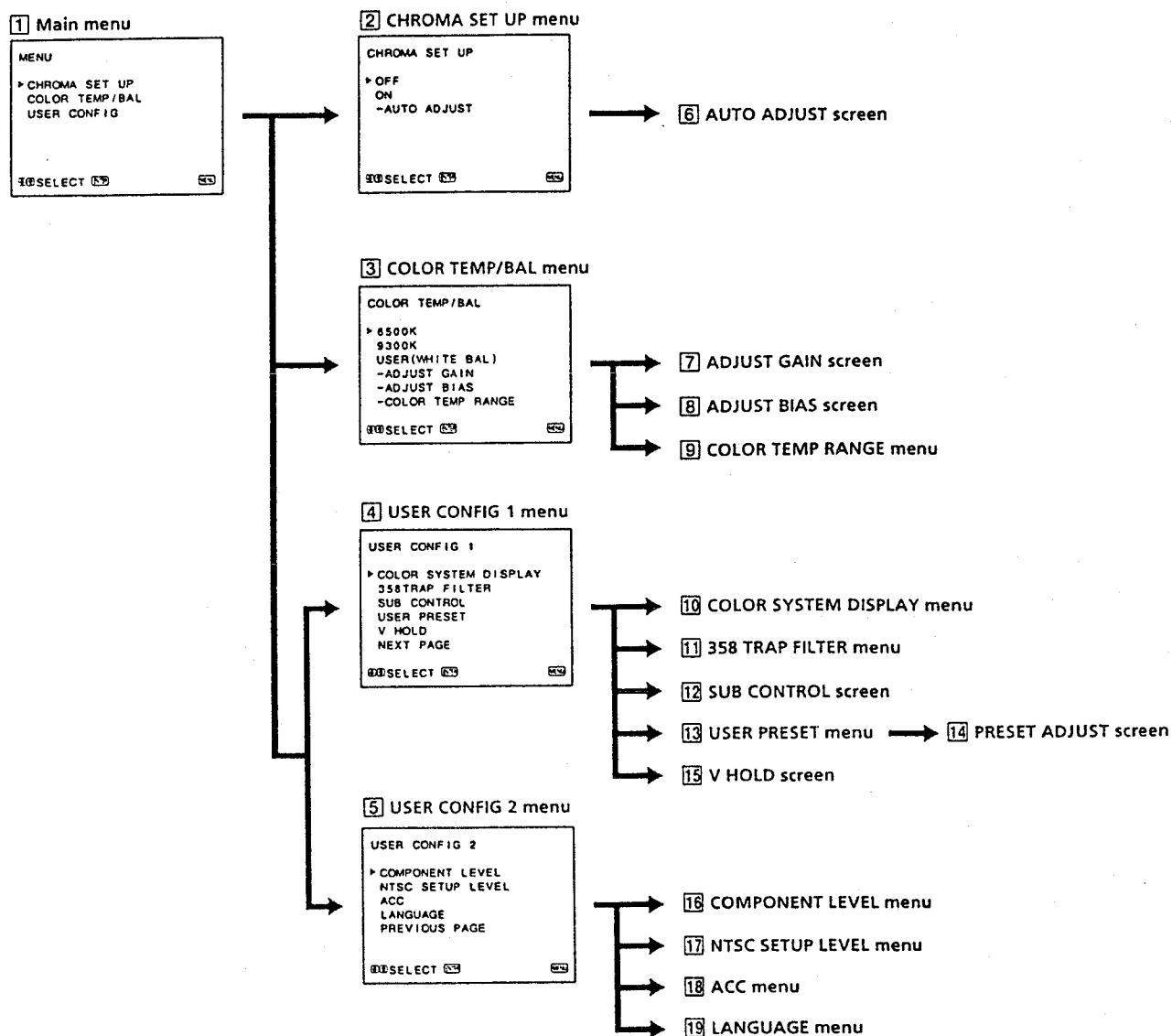
Loop-through output of the EXT SYNC IN connector.

Connect to the external sync input of video equipment to be synchronized with this monitor.

When the cable is connected to this connector, the 75-ohms termination of the input is released, and the signal input to the IN connector is output from this connector.

# Using on-screen menus

The flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. The boxed number is for instructions on the next page.



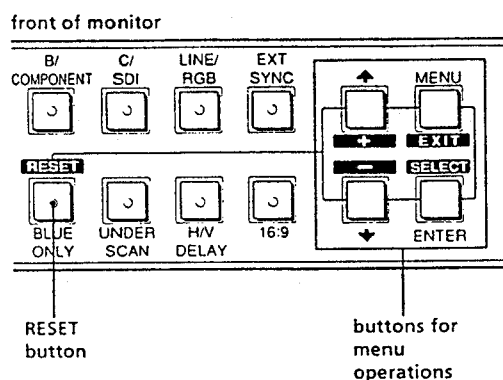
## Operating through menus

There are five buttons for menu operations on the front of the monitor. To display the main menu, first press MENU. The buttons you can use appear at the bottom of the menu screen.

### Functions of the buttons

Button	To select menu item	To adjust menu item selected
<b>MENU</b> <b>EXIT</b>	return to the previous menu	return to the previous menu
<b>ENTER</b> <b>SELECT</b>	decide a selected item	select an item
<b>↑</b> <b>+</b>	move the cursor (▶) upwards	increase selected value
<b>↓</b> <b>-</b>	move the cursor (▶) downwards	decrease selected value
<b>RESET</b>		reset current adjustment value to the factory setting

(The above items in white type correspond to the marks in the menu.)



- 1 Main menu**  
Select an item and press ENTER to go to the following menu.
- 2 CHROMA SET UP menu**  
Set to ON to adjust the internal decoder for CHROMA and PHASE (NTSC signal only) after AUTO ADJUST (6). [OFF]
- 3 COLOR TEMP/BAL menu**  
Select the color temperature from among 6500K, 9300K and USER. USER is set to 6500K in the factory setting. You can adjust or change the color temperature in USER mode (a measuring instrument is needed). [6500K]
- 4 USER CONFIG 1 menu**  
Select an item to adjust. To go to the USER CONFIG 2 menu, select NEXT PAGE.
- 5 USER CONFIG 2 menu**  
Select an item to adjust. To go to the USER CONFIG 1 menu select PREVIOUS PAGE.

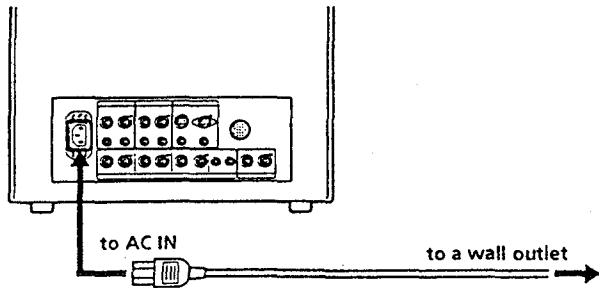
- 6 AUTO ADJUST screen**  
Select the color bar signal (full, SMPTE, EIA) and press ENTER to start auto adjusting for CHROMA SET UP (NTSC signal only).
- 7 ADJUST GAIN screen**  
Adjust GAIN in USER mode.
- 8 ADJUST BIAS screen**  
Adjust BIAS in USER mode.
- 9 COLOR TEMP RANGE menu**  
Select the color temperature range in USER mode. [5000K-10000K]
- 10 COLOR SYSTEM DISPLAY menu**  
Select the color system display mode. In AUTO, the kind of color system being used appears on the screen each time you change the signal input. [AUTO]
- 11 358 TRAP FILTER menu**  
Color spill or color noise may be eliminated if you select ON (NTSC signal only). [OFF]
- 12 SUB CONTROL screen**  
You can finely adjust the controls on the front panel. CONTRAST, BRIGHT, CHROMA and PHASE control has a click at the center of its adjustment range. You can adjust the setting of the click position with this feature.
- 13 USER PRESET menu**  
You can preset each control to a desired level and set it. If you set USER PRESET to ON, the REMOTE indicator lights up and the controls on the front panel do not work. The monitor operates with the internal memory settings. For adjustment, select PRESET ADJUST. [OFF]
- 14 PRESET ADJUST screen**  
Adjust CONTRAST, BRIGHT, CHROMA, PHASE, VOLUME, APERTURE in USER PRESET.
- 15 V HOLD screen**  
Adjust the vertical hold if the picture rolls vertically. When you cannot read the display, select the input that is not connected.
- 16 COMPONENT LEVEL menu**  
Select the component level from among three modes.  
N10/SMPTE for 100/0/100/0 signal  
BETA 7.5 for 100/7.5/75/7.5 signal  
BETA 0 for 100/0/75/0 signal [N10/SMPTE]
- 17 NTSC SETUP LEVEL menu**  
Select the NTSC setup level from two modes. The 7.5 setup level is mainly used in north America. The 0 setup level is mainly used in Japan. [0]
- 18 ACC menu**  
Set ACC (Auto Color Control) circuit on or off. When the fine adjustment is needed, set ACC to OFF. Normally set it to ON. [ON]
- 19 LANGUAGE menu**  
You can select the menu language from among the five languages (English, German, French, Italian, Spanish) on the menu. [ENGLISH]

(( ) indicates the factory setting position.)

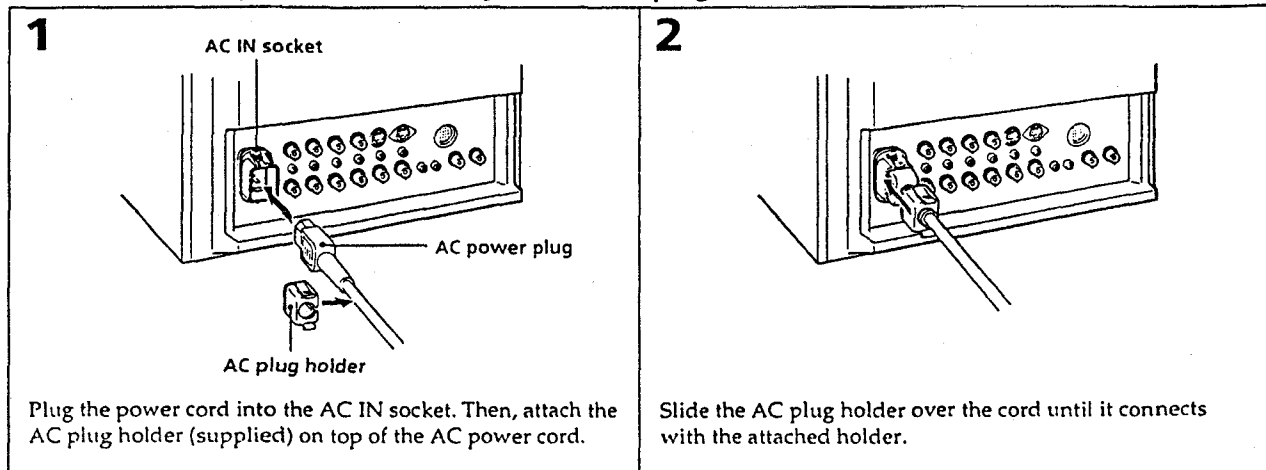
# Power sources

## House current

Connect the AC power cord (supplied) to the AC IN socket and to a wall outlet.



To connect an AC power cord securely with an AC plug holder

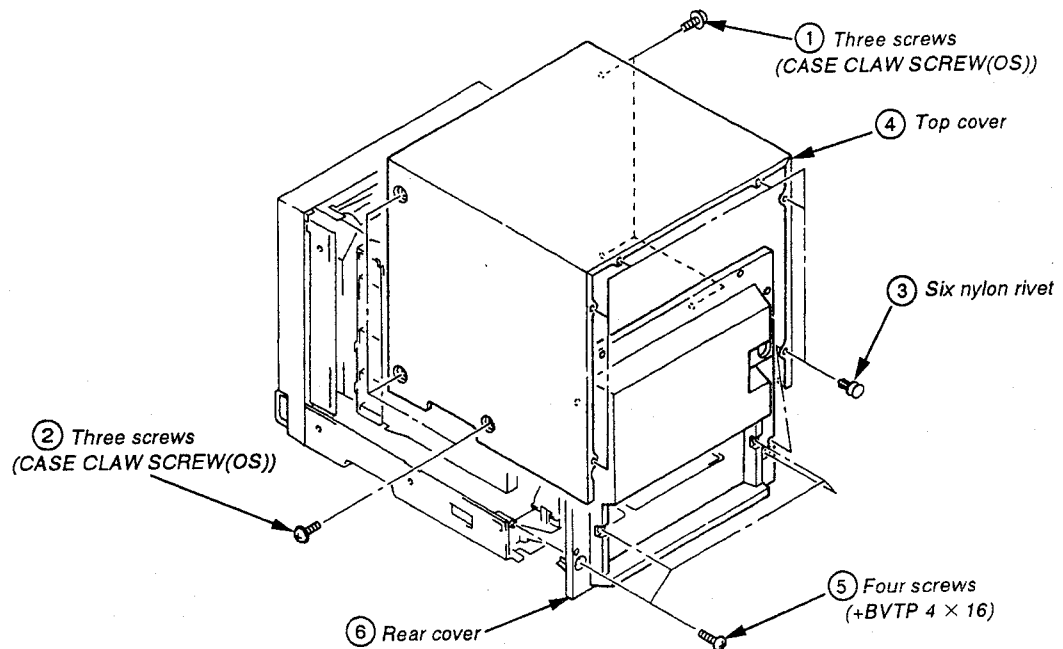


### To remove the AC power cord

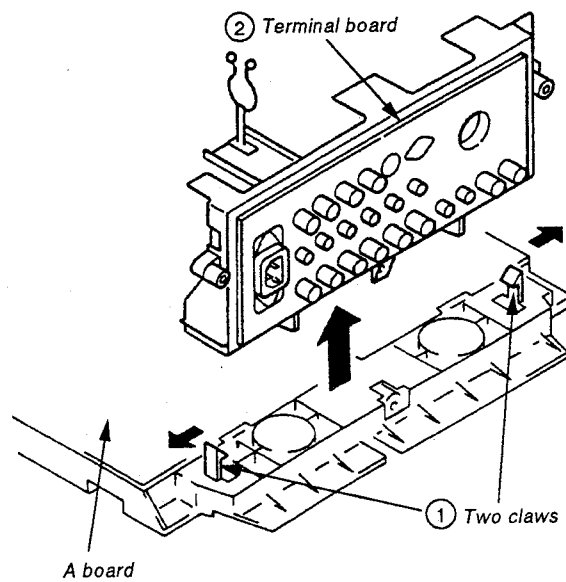
Pull out AC plug holder by squeezing the left and right sides.

## SECTION 2 DISASSEMBLY

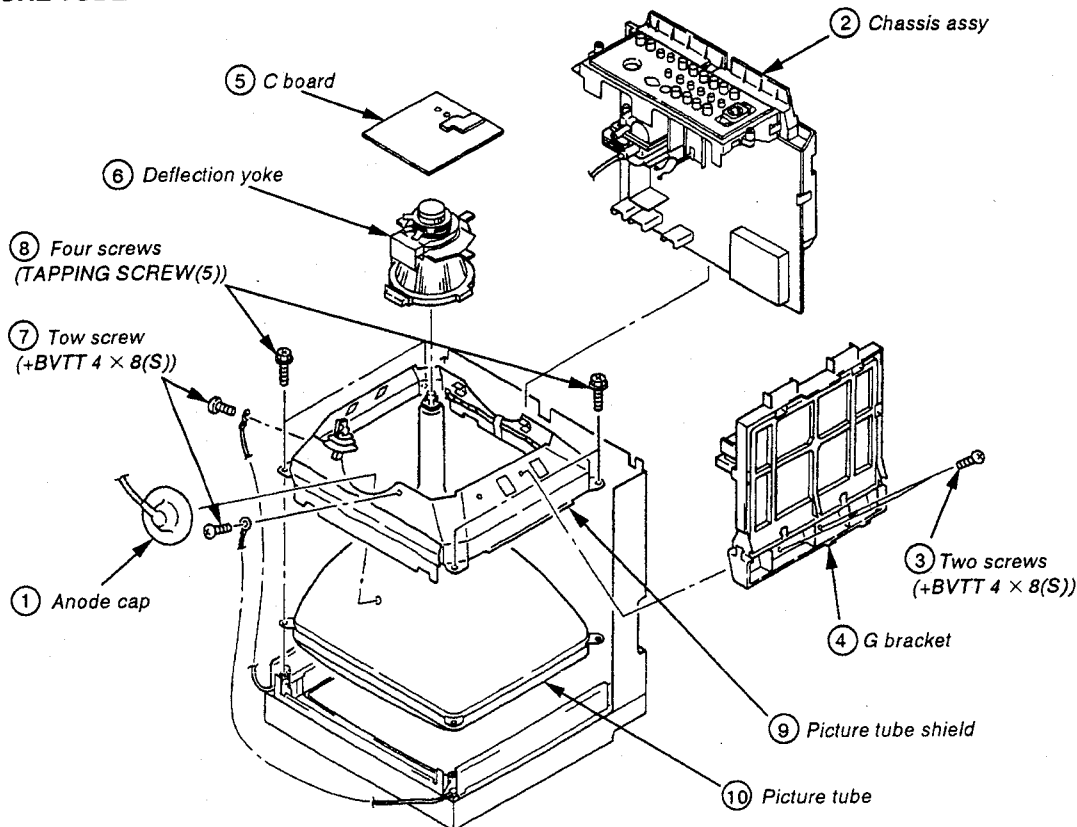
### 2-1. TOP COVER AND REAR COVER REMOVAL



### 2-2. TERMINAL BOARD REMOVAL



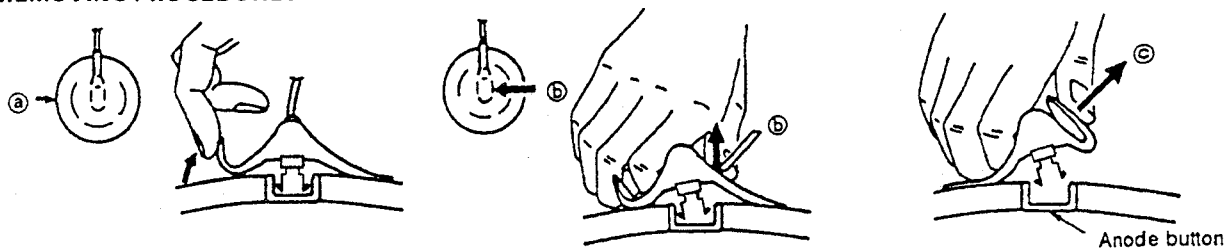
## 2-3. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

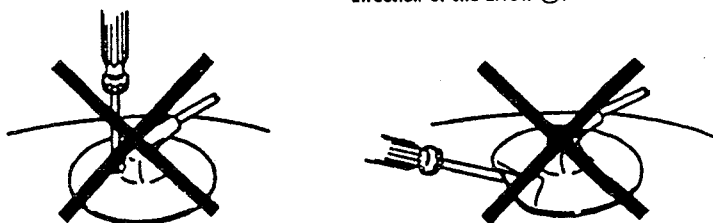
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

### • REMOVING PROCEDURES



### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3 SET-UP ADJUSTMENTS

### 3-1. PREPARATIONS (1)

#### Service Mode

This set is provided with a switch for service on the front panel that can be used to make various adjustments. The operation method of this switch is explained in detail below.

#### 1. ENTERING THE SERVICE MODE

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

#### 2. SERVICE MODE DISPLAY

(1)	(5)	(4)	(3)	(6)
(2)				

Range of Service Mode Display

- (1) The service items are largely classified into 16 types displayed by titles.
- (2) The names of the service items or READ / WRITE guidance, etc., are displayed. The names are displayed to the left and the guidance to the right.
- (3) This is the serial number for each of the service items. 1-120.
- (4) This is the adjustment data for the service items that are now stored in the RAM. Adjustments can be made by changing these values, but as long as nothing is written to the ROM the adjustment values will be erased by turning off the power or by reading, so please be careful.
- (5) When the adjustment data than is now displayed is identical with the data in the ROM, the cursor (▷) is displayed.
- (6) The present status is displayed.

[\*] : Writing to the ROM. Make sure not to turn off the power while this display is on.

[?] : ROM reading error. In this case, an image is output with the standard adjustment data that the microcomputer itself possesses.

[ε] : Problem in the I<sup>2</sup>C bus.

#### 3. FINISHING THE SERVICE MODE

Simultaneously press the [ENTER] key and the [DEGAUSS] key shown on the display of the menu.

#### 4. EASY ON / OFF OF THE SERVICE MODE

If once entering the service mode after having turned on the power, easy ON / OFF is possible by once more pressing the A, B or C switch on the front panel (the LED lights) as long as the power is not turned off or as long as the service mode is not finished.

#### 5. CHANGE OF POSITION OF THE SERVICE MODE DISPLAY

If the switch is continuously pressed when turning on in the above easy mode, the display position moves in the V direction. This method is used when the display is outside of the effective screen area.

#### 6. CHANGE OF SERVICE ITEMS

The items are returned with the [MENU] key and forwarded with the [ENTER] key. When a key is continuously pressed, the operation will be repeated.

#### 7. CHANGE OF SERVICE DATA

The service data is made larger with the [↑] key and smaller with the [↓] key. When continuously pressing the keys, the operation will be repeated.

#### 8. READING OF SERVICE DATA

When reading data from the ROM to the RAM, press the [B / D] key once and check that the READ display is shown in the guidance, and then press the [B / O] key once again. The adjustment data that is written will return to its previous state, so please be careful.

#### 9. WRITING OF SERVICE DATA

When writing data from the RAM to the ROM, press the [DEGAUSS] key once and check that the WRITE display is shown in the guidance, and then press the [DEGAUSS] key once again. Not only the displayed data will be written, but all data, so please be careful.

#### 10. CARRYING OUT FACTORY RESETTING

In case the adjustment data has been destroyed for some reason, and you keep pressing the [B / O] key at the beginning of the above reading, the READ guidance will change to FACTORY RESET guidance in approximately 3 seconds so that the factory resetting can be carried out. By once again pressing the [B / O] key after this, resetting will be carried out ([\*] will be displayed as status) and factory resetting will be executed. However, in case the data available at the time of shipment from the factory has been destroyed, or if the ROM has been replaced, etc., or if factory setting mentioned later on has been carried out, factory resetting is executed.

#### 11. CARRYING OUT FACTORY SETTING

Make sure to make possible the above factory resetting by making a copy of the adjustment data when replacing the ROM. If you keep pressing the [DEGAUSS] key at the beginning of the above writing, the WRITE guidance will change into FACTORY RESET guidance after approximately 3 seconds. By once again pressing the [DEGAUSS] key after this, setting will be carried out ([\*] will be displayed as status) and the data will be copied. By carrying out this operation, the selection items of the menu and the adjustment values will be reset to the standard conditions, so please be careful. If this operation is carried out once, it cannot be carried out again, but the FACTORY SET FLAG (No. 120) in the service mode can be set to 1.

## ROM INITIAL WRITING VALUE OF SERVICE DATA

SERVICE MAP Ver 5. x (1-120)

NO.	SERVICE ITEM	MAX	14"	20"	NO.	SERVICE ITEM	MAX	14"	20"
1	NOR 50 DEF H FREQUENCY	255	80	107	61	C / T1 ??00K BIAS (RED)	1023	443	443
2	VIDEO PHASE	255	141	127	62	BIAS (GREEN)	1023	512	512
3	V SIZE	255	165	155	63	BIAS (BLUE)	1023	394	394
4	V CENTER	255	122	116	64	GAIN (RED)	1023	662	662
5	NOR 60 DEF H FREQUENCY	255	90	112	65	GAIN (GREEN)	1023	700	700
6	VIDEO PHASE	255	120	123	66	GAIN (BLUE)	1023	536	536
7	V SIZE	255	157	161	67	B / O (RED)	255	120	120
8	V CENTER	255	128	111	68	B / O (GREEN)	255	125	125
9	NOR DEF H SIZE	255	111	102	69	C / T2 ??00K 3200K SW	1	0	0
10	PIN PHASE	255	108	110	70	BIAS (RED)	1023	263	263
11	PIN AMP	255	112	122	71	BIAS (GREEN)	1023	512	512
12	U/L PIN	255	126	155	72	BIAS (BLUE)	1023	459	459
13	SEXY	255	128	128	73	GAIN (RED)	1023	572	572
14	V LINEARITY	255	132	82	74	GAIN (GREEN)	1023	700	700
15	V BOW	* 63	32	32	75	GAIN (BLUE)	1023	656	656
16	V ANGLE	* 63	32	32	76	B / O (RED)	255	86	86
17	U/SDEF V SIZE (50)	255	124	134	77	B / O (GREEN)	255	105	105
18	V SIZE (60)	255	116	131	78	W / B SUB CON (4 : 3, NORMAL)	255	210	210
19	H SIZE	255	115	89	79	SUB CON (4 : 3, H / V DELAY)	255	122	122
20	PIN PHASE	255	118	112	80	SUB CON (16 : 9, NORMAL)	255	165	165
21	PIN AMP	255	74	96	81	SUB CON (16 : 9, H / V DELAY)	255	93	93
22	16:9 NOR DEF V SIZE (50)	255	81	89	82	SUB BRIGHT	255	71	71
23	V SIZE (60)	255	85	100	83	USER B / O (RED)	255	120	120
24	PIN PHASE	255	113	120	84	USER B / O (GREEN)	255	125	125
25	PIN AMP	255	64	68	85	OTHER OSD POSITION	255	129	129
26	U/L PIN	255	132	136	86	V HOLD	255	128	128
27	16:9 U/S DEF V SIZE (50)	255	41	59	87	H BLANKING	255	68	68
28	V SIZE (60)	255	35	55	88	V BLANKING (50)	255	63	63
29	PIN PHASE	255	124	122	89	16 : 9 BLANKING START(50)	255	37	37
30	PIN AMP	255	47	55	90	16 : 9 BLANKING END(50)	255	163	163
31	COMPONENT SUB PHASE	255	140	140	91	V BLANKING (60)	255	117	117
32	SUB CHROMA (NORMAL)	255	104	104	92	16 : 9 BLANKING START(60)	255	40	40
33	SUB CHROMA (SMPTE)	255	168	168	93	16 : 9 BLANKING END(60)	255	215	215
34	R-Y LEVEL	255	155	155	94	H DELAY	255	165	165
35	NTSC BURST GATE PULSE WIDTH	255	22	22	95	V DELAY	255	101	101
36	CRYSTAL	255	51	51	96	HP POSITION	255	130	130
37	PHASE (NORMAL)	255	103	103	97	HP WIDTH (NORMAL)	255	90	90
38	PHASE (ACC OFF)	255	112	112	98	HP WIDTH (H / V DELAY)	255	35	35
39	B-Y PHASE	255	141	141	99	SYSTEM SDI AUDIO	7	5	5
40	CHROMA (NORMAL)	255	123	123	100	358TRAP FILTER	1	0	0
41	CHROMA (ACC OFF)	255	20	20	101	ACC	1	0	0
42	R-Y LEVEL	255	87	87	102	CAPTION VISION	7	0	0
43	NTSC 443 CRYSTAL	255	65	65	103	COMPONENT LEVEL	3	2	2
44	PHASE (NORMAL)	255	80	80	104	NTSC SETUP LEVEL	1	0	0
45	PHASE (ACC OFF)	255	75	75	105	CHROMA SET UP	1	0	0
46	B-Y PHASE	255	140	140	106	COLOR SYSTEM DISPLAY	3	0	0
47	CHROMA (NORMAL)	255	117	117	107	COLOR TEMPERATURE	3	0	0
48	CHROMA (ACC OFF)	255	87	87	108	USER PRESET	1	0	0
49	R-Y LEVEL	255	100	100	109	LANGUAGE	7	0	0
50	PAL PHASE (NORMAL)	255	87	87	110	RGB SYNC	1	0	0
51	PHASE (ACC OFF)	255	72	72	111	OPTION BOARD	7	0	0
52	B-Y PHASE	255	105	105	112	AGING MODE	1	0	0
53	CHROMA (NORMAL)	255	141	141	113	PAL-M	1	0	0
54	CHROMA (ACC OFF)	255	90	90	114	MODEL	15	**	**
55	R-Y LEVEL	255	120	120	115	COLOR TEMP DISP 1	127	65	65
56	SECAM CHROMA	255	120	120	116	COLOR TEMP DISP 2	127	93	93
57	R-Y LEVEL	255	229	229	117	REMOTE ADDRESS	127	0	0
58	COLOR BALANCE (R-Y)	255	116	116	118	RESERVED 1	1	0	0
59	COLOR BALANCE (B-Y)	255	98	98	119	RESERVED 2	1	0	0
60	C/T1 ??00K 3200K SW	1	0	0	120	FACTORY SET FLAG	1	0	0

\* Among the data 8 bits (MAX255) only the upper 6 bits can be changed.

\*\* 4 : PVM-1354Q, PVM-1351Q, PVM-1454Q, PVM-1454QM, PVM-1954Q, PVM-2054Q, PVM-2054QM 1 : PVM-1450QM

7 : PVM-1350, PVM-1450.

## PREPARATIONS (2)

\* When composite video or component signals are supplied, they must be supplied as below.

Signal		Signal Contents	Standard Level P-W
COMPOSITE VIDEO	358NT 443NT	100% WHITE	0.714V
		75% WHITE	0.536V
		BURST (GREEN) (This item only P-P)	268mV (623mV)
	PAL SECAM	100% WHITE	0.7V
		75% WHITE	0.525V
		PAL BURST (GREEN) (This item only P-P)	300mV (664mV)
COMPONENT	BETA 0	100% WHITE Y	0.7V
		75% WHITE Y	0.525V
		75% COLOR B-Y, R-Y (This item only P-P)	0.7V
	SMPTE	100% WHITE Y	0.7V
		75% WHITE Y	0.525V
		75% COLOR B-Y, R-Y (This item only P-P)	0.525V

\* In this document, terms inside boxes   are names of service mode adjustments.

Example 60H-FREQ

\* After making adjustments in service mode, write the adjustment data before cutting off the power. If you cut off the power without writing, the results of your adjustments are all lost.

\* Standard inspection conditions

Unless specifically specified otherwise in this document, the following conditions are used for adjustments and inspections.

APERTURE	MIN
BRIGHT	50% (Center click)
CHROMA	50% (Center click)
PHASE	50% (Center click)
CONTRAST	80% (Center click)
VOLUME	50%

## 3-2. WRITING MODEL DATA

1. In service mode, write in the following model data at No. 114

MODEL.

PVM-1450QM 1  
PVM-1454QM 0

2. In service mode, write in the following data at No. 115

COLOR TEMP DISP 1.

PVM-1450QM/1454QM 65

3. In service mode, write in the following data at No. 116

COLOR TEMP DISP 2.

PVM-1450QM/1454QM 93

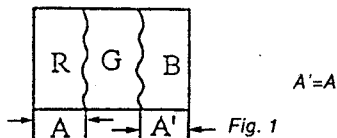
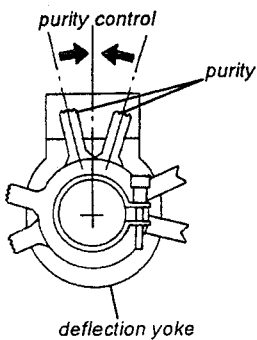
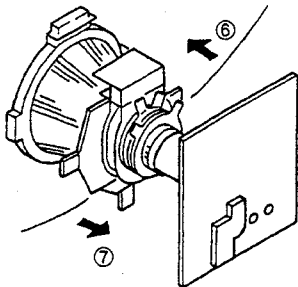
## 3-3. PICTURE OUTPUT

1. Set the AC input voltage.
  - (1) Input the video and audio signals to the corresponding terminals on the connector panel.
  - (2) Set the sliduck AC voltage as shown on the right. (\*1-1)

Model	Voltage
PVM-1450QM/1454QM	AC220 ± 3V (Distortion rate : 3% or less)

## 3-4. LANDING ADJUSTMENT

1. Preparations
  - 1) To reduce the influence of geomagnetism, face the set's CRT screen east or west.
  - 2) Loosen the deflection yoke fixture and lower the deflection yoke to the rear.
  - 3) Switch on the Power switch and degauss with the degausser.
  - 4) Adjust the deflection yoke tilt.
2. Adjustment
  - 1) CONT ..... MIN  
BRT..... Position providing good vision
  - 2) The rough adjustments of the white balance, G2, and convergence must be completed already.
  - 3) Set green-only.
  - 4) Adjust the purity knob so that the green comes to the center of the screen. Make the red and blue about even. Fig. 1
  - 5) Switch to blue only, red only, and green only and verify each. Fig. 1, 2, and 3
  - 6) Bring the deflection yoke gradually forward and adjust the deflection yoke so that the R and B at both sides of the screen become green. Fig. 2 → 3
  - 7) If the deflection yoke comes too far forward, you will see the pattern shown in Figure 4. If that happens, lower the deflection yoke to the rear. Fig. 4 → 3
  - 8) Switch the single color switch to B and verify the single color. Fig. 6
  - 9) Switch the single color switch to R and verify the single color. Fig. 9
  - 10) When one of the colors does not become the single color correctly, check by repeating Items 7 and 8 based on the single color not coming into adjustment.  
If you can not obtain landing in the corners, paste on magnets.
  - 11) Switch to an all-white signal and check the uniformity.
  - 12) When the deflection yoke position is determined, fasten it with the fixture.



A'=A

Fig. 1

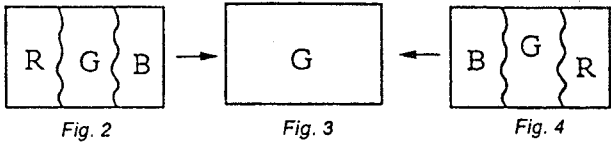


Fig. 2

Fig. 3

Fig. 4

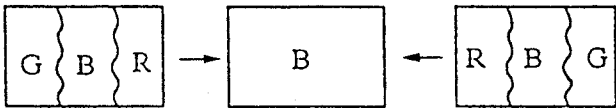


Fig. 5

Fig. 6

Fig. 7

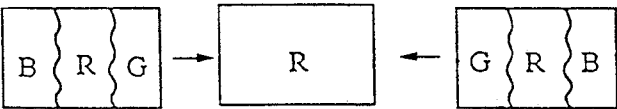


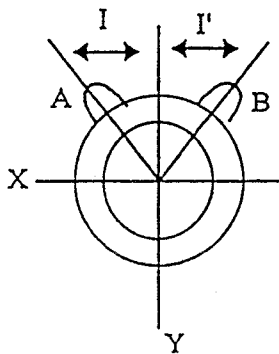
Fig. 8

Fig. 9

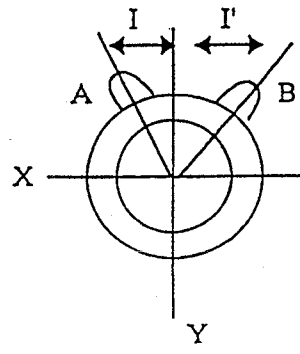
Fig. 10

3-5. CONVERGENCE ADJUSTMENT

1. Input a dot pattern signal.  
CONT ..... Position providing good vision  
BRT ..... MIN
2. Align the horizontal R, G, and B dots at the center of the screen with the H-STAT VR. (\*1)  
\*1 : If the H-CENTER adjustment was after the H-STAT adjustment, re-adjust the H-STAT.  
(The H-CENT VR changes the H-STAT too.)
3. Align the R, G, and B at the center of the screen with the V-STAT magnets. (\*2)  
\*2 : After the V-STAT adjustment, paint on the knobs to lock them.



Good example



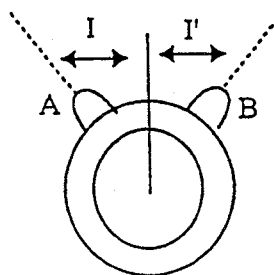
Bad example

V-STAT magnet knobs  
While keeping the angles for A and B equal ( $I=I'$ ), align the vertical convergence.

If the A and B knobs are not symmetrical ( $I \neq I'$ ), this has bad effects. The focus may deteriorate and beam striking may occur.

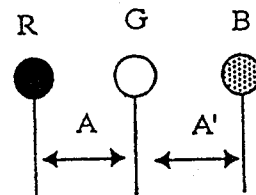
4. For HMC, use the 6-pole magnet to adjust the R and B dots to be symmetrical left and right about the G dot. (\*1)

\*1 :



6-pole magnet

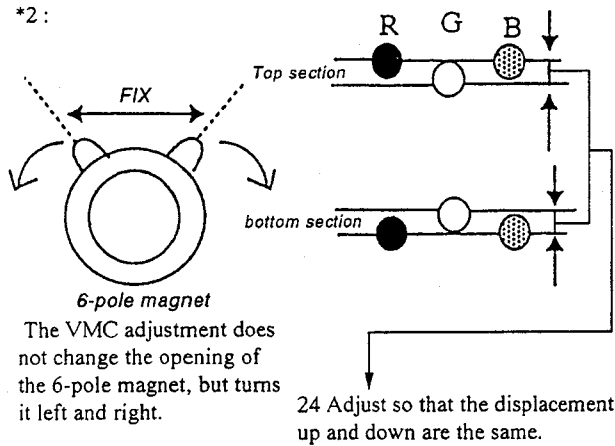
The HMC adjustment changes the opening of the 6-pole magnet.



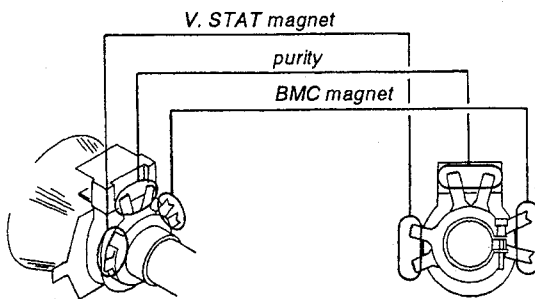
Adjust the 6-pole magnet so that  $A=A'$ . You must maintain the relationship  $I \neq I'$  while moving the magnet.

5. For VMC, use the 6-pole magnet to adjust the R and B dots to be symmetrical above and below the G dot. (\*2)

\*2:



6. Adjust by repeating the adjustments in Items 2 through 5. (\*3)
- \*3: The above adjustment may affect the landing, so after this adjustment, check the landing again.
7. After the adjustment is complete, paint on the knobs to lock them.

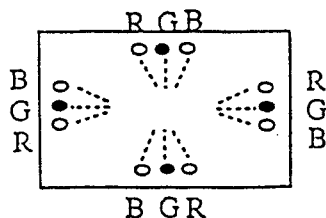


### 3-6. DEFLECTION YOKE NECK ROTATION ADJUSTMENT

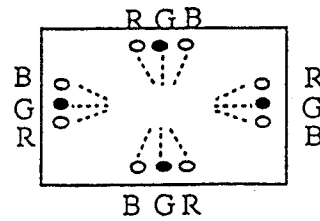
If there is misconvergence at both sides on the X or Y axis of the screen, turn the neck of the deflection yoke in the direction of the arrow to reduce the misconvergence for the entire CRT screen to within the tolerance.

- Reverse misconvergence pattern

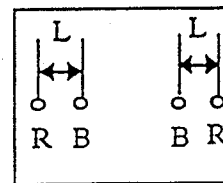
Turn the deflection yoke neck down.



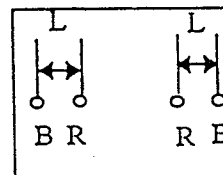
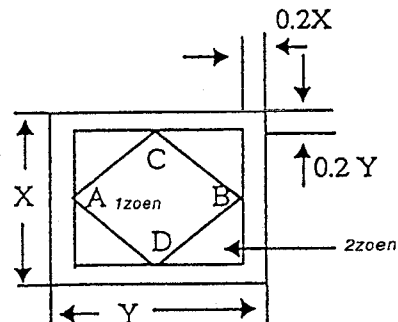
Positive misconvergence pattern  
Turn the deflection yoke neck up.



Pattern when deflection yoke too far to the left

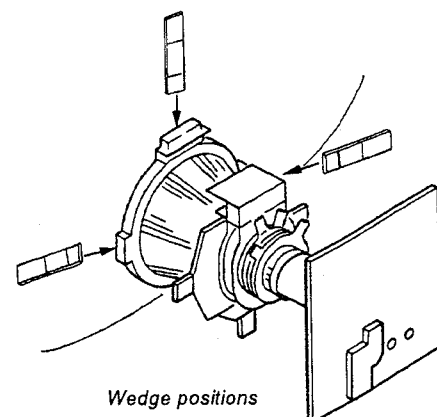


As viewed from the CRT screen, turn the deflection yoke neck to the right.

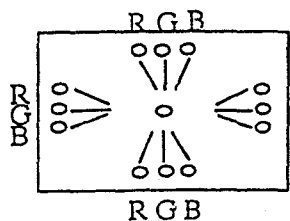


Pattern when deflection yoke too far to the right

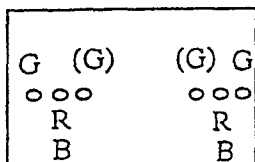
- Insert the three wedges in the deflection yoke and CRT funnel surface to fasten the deflection yoke.



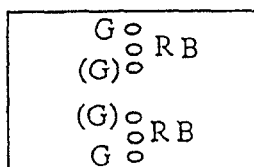
3. The pattern below can not be corrected by turning the neck.



\* Gun rotation  
The beam is twisted at both sides on the X axis and Y axis.



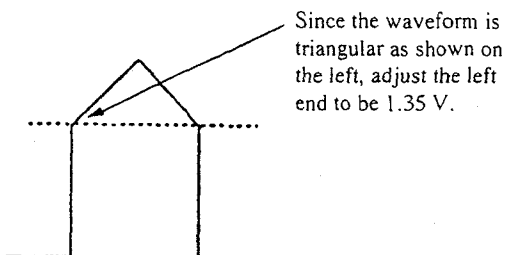
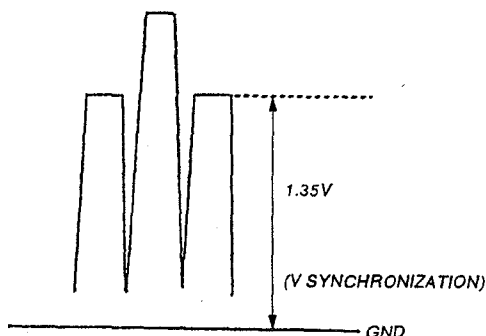
\* HCR large (small)  
At both sides of the screen, the G raster horizontal component is wider (narrower) than those of the R and B rasters.



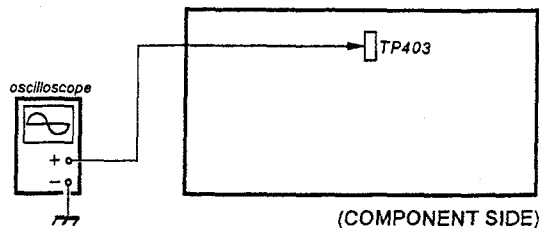
\* VCR large (small)  
At both sides of the screen, the G raster vertical component is wider (narrower) than those of the R and B rasters.

## 3-7. G2 ADJUSTMENT

1. Input a 525 monoscope signal.
2. Connect the oscilloscope to A board TP403.
3. Of the three reference pulses, measure the lowest one.
4. With the Screen VR, adjust so that left end of the waveform is :  $1.35 \text{ V} \pm 0.05$



A BOARD



## 3-8. WHITE BALANCE ADJUSTMENT

For measuring equipment, use a color analyzer. (for example from Minolta, etc.)

For the PVM-1450QM, Items 7, 8, 14, 15 and 16 are not necessary.

1. Input a 525 monoscope signal.  
(Input from Line A or Line B, with no burst.)
2. Set :  
CONT ..... 0%  
BRT ..... 50%
3. On a 20-tone gray scale, adjust service mode **SUB BRIGHT** so that  
· 0 and 5 IRE → cut off  
10 IRE → slight glow
4. Input 525 all-white (no burst, composite signal).
5. Set CONT to 80%.
6. Adjust the all-white signal luminance so that the screen luminance is 3 NIT.
7. Press MENU and select COL TEMP/BAL.
8. Select 6500 K.
9. Put the unit into service mode. (\*1)  
\*1 : Set **3200 K SW** to 0 for both 9300K and 6500K.
10. Adjust to the standard values with **C/T1 6500K BIAS**.  
(G must be fixed at "512".) (\*2)  
\*2 : Adjust the cut-off to be 3 NIT.
11. Switch the all-white signal luminance to 100 IRE.
12. Adjust to the standard values with **C/T1 6500K GAIN**.  
(G must be fixed at "700".)
13. Repeat Items 10, 11 and 12 until the adjustment is complete, then write the adjustment data.
14. Press MENU and select COL TEMP/BAL.
15. Select 9300 K.
16. In the same manner as in Items 10, 11, 12 and 13 make the **C/T2 9300K BIAS** and **C/T2 9300K GAIN** adjustments.

### 3-9. BLUE-ONLY WHITE-BALANCE ADJUSTMENT

For the PVM-1450QM, Items 3, 4, 5, 6, 7 and 8 are not necessary.

1. Switch the user control SW Blue Only On (to set blue-only mode).
2. Input an all-white signal (no burst composite signal). (\*1)  
The luminance of the all-white signal must be 100 IRE.  
CONT ..... 80%  
BRT ..... 50%
3. Select COL TEMP/BAL.
4. Select 6500 K.
5. Adjust to the standard values with C/T1 6500K B/O (RED)  
and C/T1 6500K B/O (GREEN).
6. Select COL TEMP/BAL.
7. Select 9300 K.
8. Adjust to the standard values with C/T1 9300K B/O (RED)  
and C/T1 9300K B/O (GREEN).
9. Check that the white balance is obtained when the all-white signal luminance is adjusted and the screen luminance is 8 NIT.

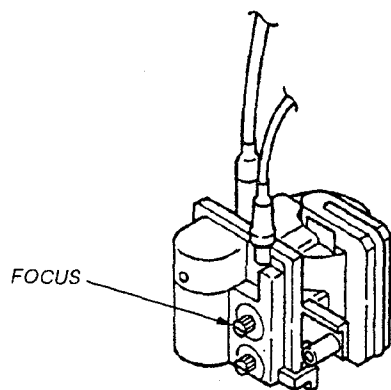
### 3-10 SUB BRT ADJUSTMENT

1. Input a 525 monoscope signal.
2. CONT ..... MIN  
BRT ..... CENTER (50%)
3. Put the unit into service mode and select SUB BRIGHT.
4. Adjust SUB BRIGHT so that 10 IRE gives a slight glow and 10 IRE gives cut off.

### 3-11. FOCUS ADJUSTMENT

**Note :** PVM-1450QM are adjusted with RV707 on the C board.  
PVM-1454QM are adjusted with the RV at the top of the FBT main unit

1. Input a 525 monoscope signal.
2. Adjust the focus to optimize the focus on the characters "30" at the center of the screen.
3. Switch to an all-white signal and check the uniformity.



MEMO

Handwriting practice lines consisting of 20 horizontal dotted lines.

## SECTION 4 SAFETY RELATED ADJUSTMENT

The following adjustments should always be performed when replacing the following components (marked with  $\boxtimes$ ,  $\boxdot$  on the schematic diagram).

+B detection.....  $\boxtimes$  R1535  
Tertiary coil detection.....  $\boxtimes$  R1536

Hold Down Circuit.....  $\boxdot$  A board IC500, D533, R1537, C592, R1536, C523, R1560, R551, C549, R518, C506, C512, D501, R506, R519, T501, IC507

Beam Current Protector Circuit.....  $\boxdot$  A board R508, R515, R516, R517, C513, Q500, Q511

B+ Regulator Circuit.....  $\boxdot$  A board R1535  
 $\boxdot$  G board C603, IC602

### B+ MAX VOLTAGE CONFIRMATION (RV601)

Standard : 115.0~117.0 VDC

Check Condition : Input voltage : 130~132 VAC

Note : Use NF Power Supply or make sure that distortion factor is 3% or less.

Input signal : ALL White

Controls : BRT & CONT  $\Rightarrow$  Minimum

### HOLD-DOWN CIRCUIT VOLTAGE CONFIRMATION

Check Condition : Input voltage : 130~132 VAC

Input signal : monoscope signal

Controls : BRT & PIC  $\Rightarrow$  initial reset

B+ voltage : Less than 117.0 V

#### (1) Hold down circuit (+B Actuation)

- a) When IABL =  $600 \pm 50 \mu A$ , raster goes out at less than 130.5 V of +B voltage (TP502) by adjusting  $\Delta$  R690 and RV601.

Input signal : ALL white  
 $\Delta$  R690 : 470-5.6k 1/4 W RN

- b) When IABL =  $120 \pm 20 \mu A$ , raster goes out at less than 134 V of +B voltage (TP502) by adjusting  $\Delta$  R690 and RV601.

Input signal : Dot

#### (2) Hold down circuit (Tertiary coil detection voltage)

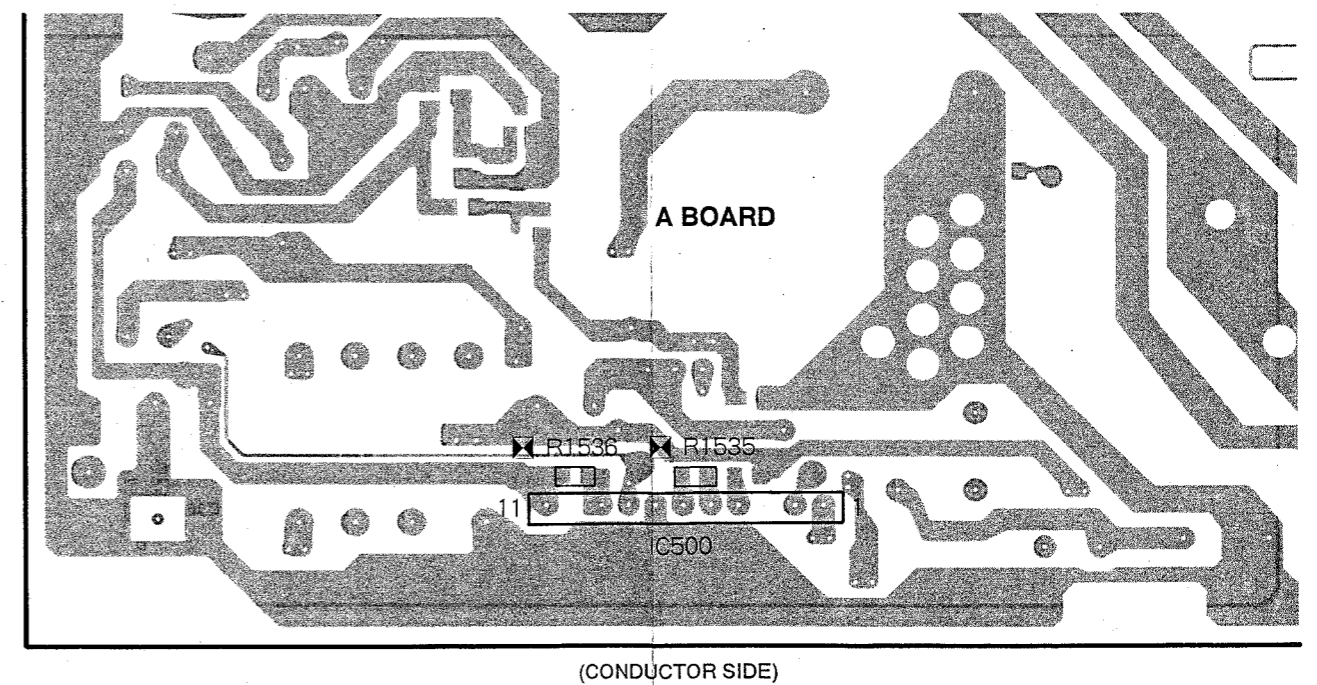
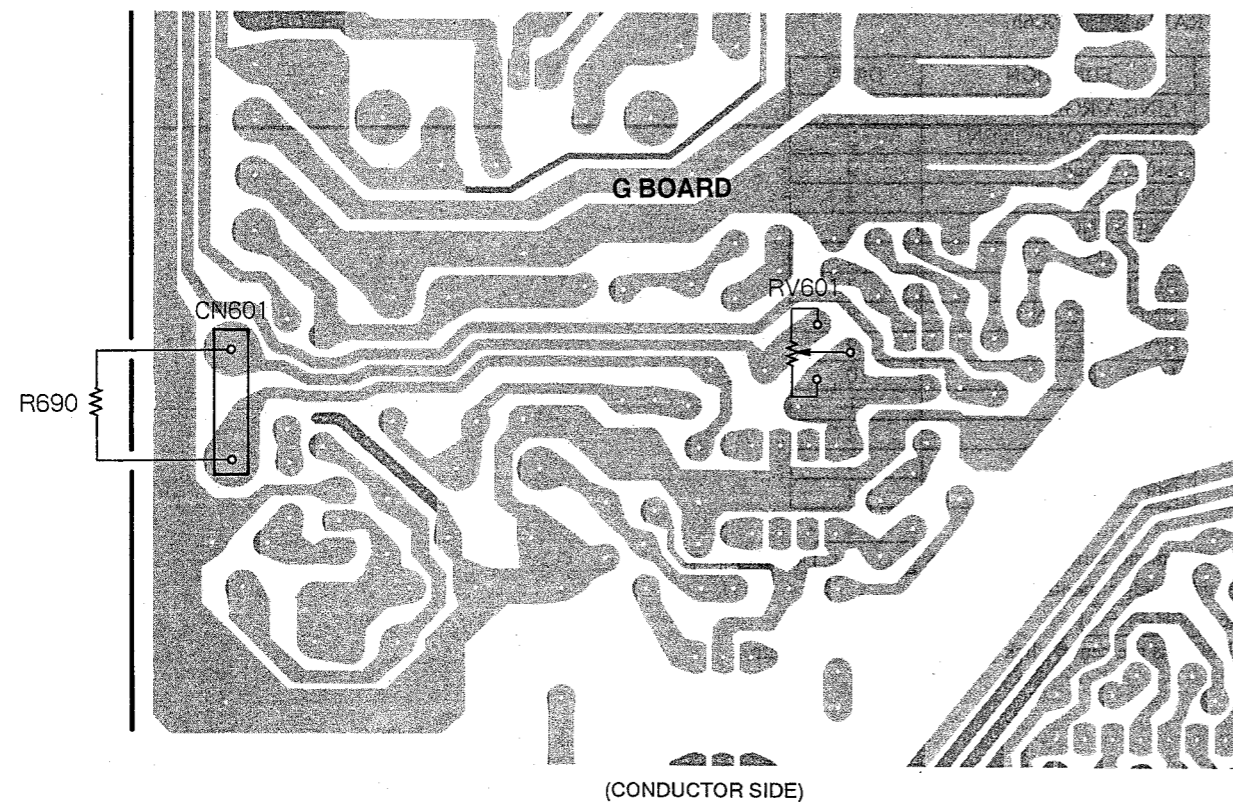
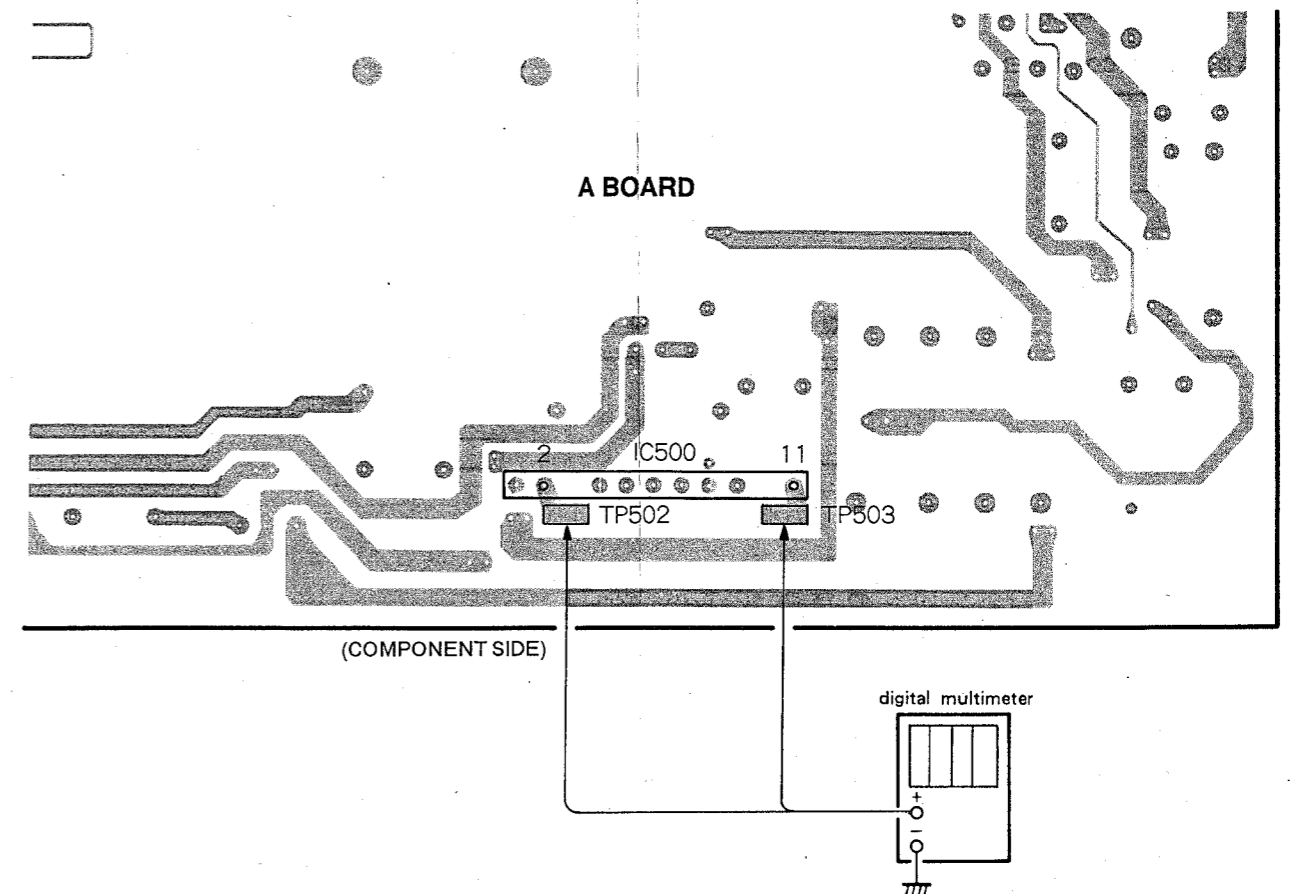
Confirmatory item : 110.0 V voltage should be applied to the (11) pin of IC500.

- a) When IABL =  $600 \pm 50 \mu A$ , raster goes out when applying less than DC 146.7 V voltage to the (11) pin (TP503) of IC500 from outside.

Input signal : ALL white

- b) When IABL =  $40 \pm 20 \mu A$ , raster goes out when applying less than DC 147.0 V voltage to the (11) pin (TP503) of IC500 from outside.

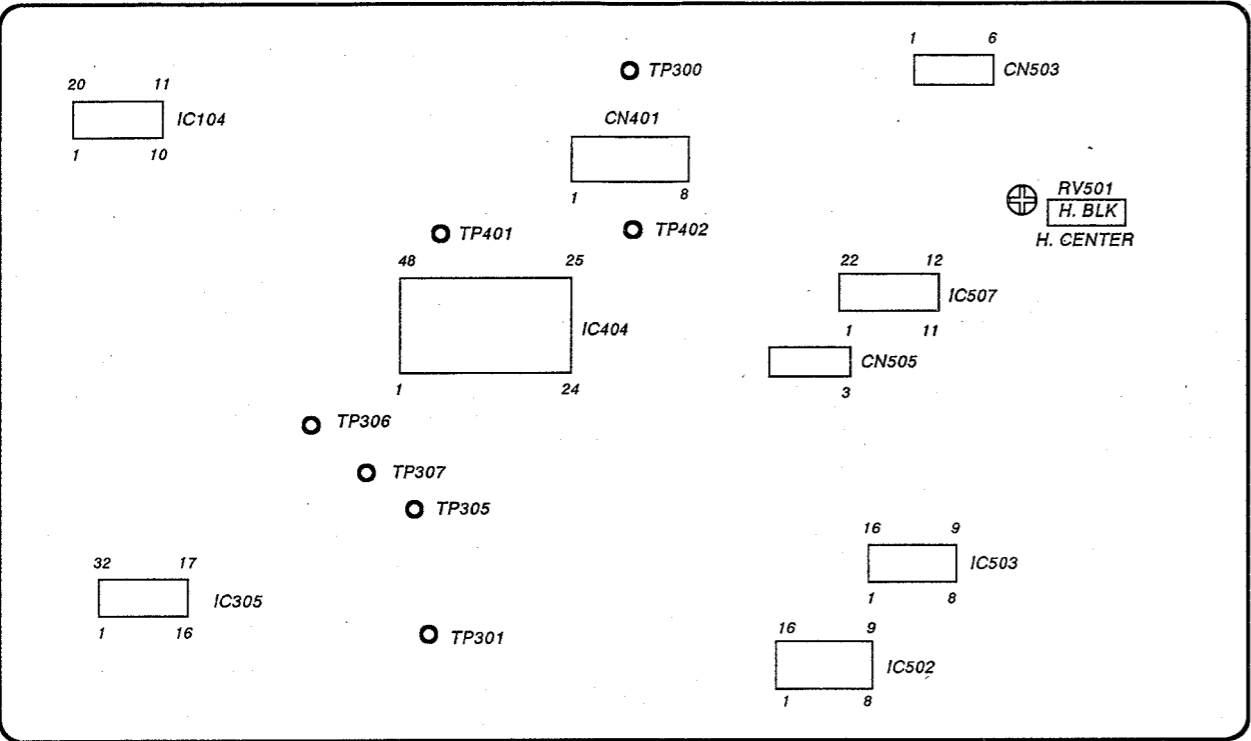
Input signal : Dot



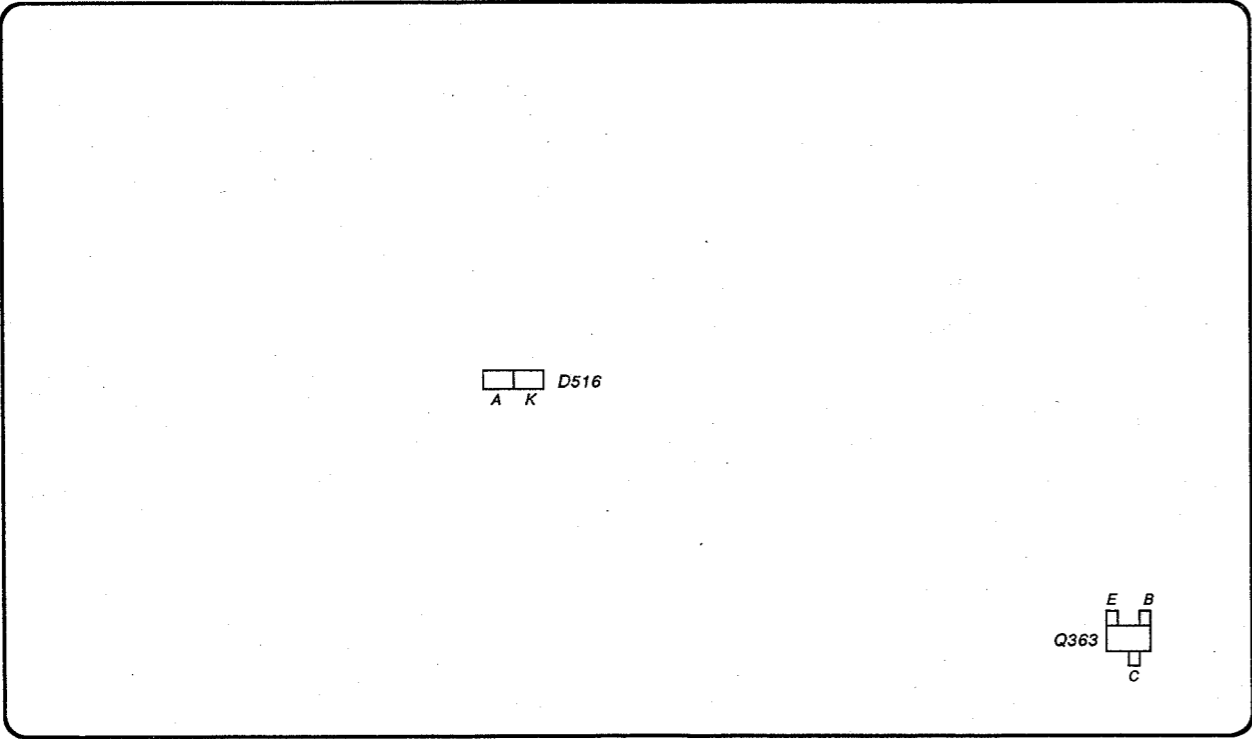
SECTION 5  
CIRCUIT ADJUSTMENTS

5-1. A BOARD ADJUSTMENT

A BOARD — COMPONENT SIDE —



A BOARD — CONDUCTOR SIDE —



I. Preparations

\* When composite video or component signals are supplied from connector CN301, they must be supplied taking into account the effect of the Q board as indicated on the right.  
The levels of the signals supplied must be within  $\pm 2\%$  of the standard on the right.

Signal		Signal Contents	Standard Level (Pedestal-White)	Reduction Ratio	Connector Feed Level (Pedestal-White)
COMPOSITE VIDEO (75% COLOR BAR)	358NT 443NT	100% WHITE	0.714V	93%	0.664V
		75% WHITE	0.536V	93%	0.498V
		BURST (GREEN) (This item only P-P)	286mV (632mV)	94% (94%)	269mV (594mV)
	PAL SECAM	100% WHITE	0.7V	94%	0.651V
		75% WHITE	0.525V	94%	0.488V
		PAL BURST (GREEN) (This item only P-P)	300mV (664mV)	94% (94%)	282mV (624mV)
COMPONENT (75% COLOR BAR)	BETA0	100% WHITE Y	0.7V	94.8%	0.664V
		75% WHITE Y	0.525V	94.8%	0.498V
		75% COLOR B-Y, R-Y (This item only P-P)	0.7V	94.8%	0.664V
	SMPTE	100% WHITE Y	0.7V	94.8%	0.664V
		75% WHITE Y	0.525V	94.8%	0.498V
		75% COLOR B-Y, R-Y (This item only P-P)	0.525V	94.8%	0.498V

\* The function or input can be selected by writing the corresponding data from the table below into microcomputer (IC101) RAM address 0006h.

BIT	FUNCTION	DATA
0-3	LINE A/RGB	1
	LINE B/COMPONENT	2
	LINE C/SDI	3
	LINE/RGB	4
	EXT SYNC	5
	DEGAUSS	6
	BLUE ONLY	7
	UNDER SCAN	8
	H/V DELAY	9
	16 : 9	10
4-7	MENU	1
	SELECT	2
	UP	3
	DOWN	4

\* In this document, terms inside boxes are names of service mode adjustments.  
Example 60H-FREQ  
\* CONT 80% is the center click position for the user control.

## II. Deflection System Adjustment

### 1. ADJUSTING THE HORIZONTAL OSCILLATION FREQUENCY

1. Input a 525 monoscope signal.
2. Set :  
CONT..... 80%  
BRT..... 50%
3. Put the unit into service mode.
4. Drop A board IC507 Pin 1 to ground with a  $100\mu/16V$  electrolytic capacitor. (Ground must use CN505 Pin 3.) Or plug the H-FREQ tool into CN505.
5. Adjust **60H-FREQ** so that the diagonal lines on the screen become vertical lines. (Fig. 1)
6. Input a 625 monoscope signal.
7. Adjust **50H-FREQ** so that the diagonal lines on the screen become vertical lines. (Fig. 1)

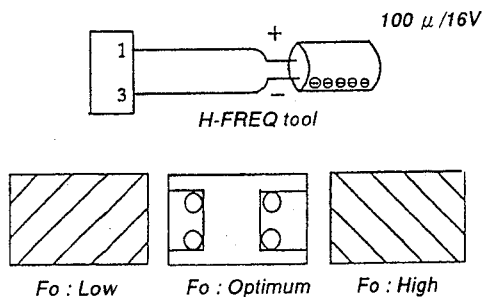


Fig. 1

#### 2-1. H-BLK Adjustment

1. Input a 525 monoscope signal.
2. Set :  
CONT..... 80%  
BRT..... 50%
3. Put the unit into service mode.
4. Observe the anode of D516 or TP300 with the oscilloscope and adjust **H-BLK** to obtain the waveform in Fig. 2.

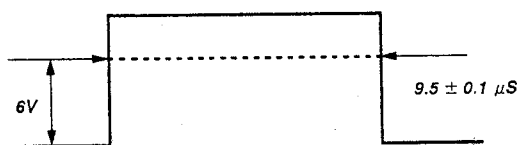


Fig. 2

#### 2-2. H-BLK Adjustment (PVM-1450QM only)

1. Put the unit into service mode.
2. Input an adjustment value of **70** for H-BLK.

#### 3-1. PICTURE PHASE Adjustment (PVM-1454QM only)

1. Input a 525 monoscope signal.
2. Put the unit into under scan mode.
3. Set :  
CONT..... Min.  
BRT..... Max.

4. Put the unit into service mode.
5. Use **U/S H SIZE** to adjust the size of the monoscope white frame to be about 1 cm to the inside of the limits of the effective screen.
6. Turn RV501 (H-CENT) and adjust so that  $B=B'$ .
7. Adjust **60 VIDEO PHASE** so that the signal region comes to the center ( $A=A'$ ) of the deflection region. (Fig. 3)

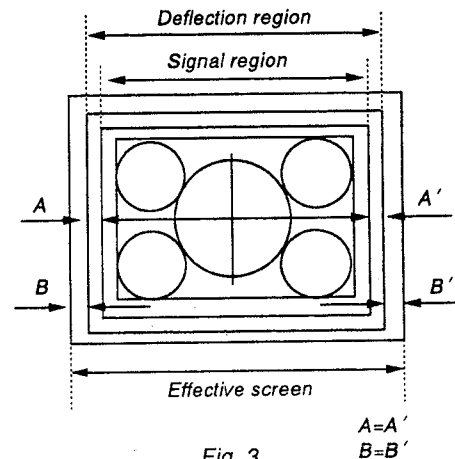


Fig. 3

8. Input a 625 monoscope signal.
9. Adjust **50 VIDEO PHASE** in the same manner.

### 3-2. PICTURE PHASE Adjustment (PVM-1450QM only)

1. Input a 525 monoscope signal.
2. Put the unit into service mode.
3. Input an adjustment value of **123** for **60 VIDEO PHASE**.
4. Input an adjustment value of **137** for **50 VIDEO PHASE**.
5. Roughly adjust H-SIZE so that the horizontal size is 15.75 frames.
6. Turn RV501 (H-CENT) and adjust so that the left and right over scan amounts are equal.

#### 4-1. V-BLK Adjustment (PVM-1454QM only)

1. Input a 525 monoscope signal.
2. Put the unit into under scan mode.
3. Set :  
CONT..... Min.  
BRT..... Max.
4. Put the unit into service mode.
5. Adjust **V BLK (60)** so that before 0.5H of the white frame on the top of the monoscope is barely unblocked.
6. End under scan mode and put the unit into Normal 16:9 mode.
7. Adjust **16 : 9 BLK START (60)** and **16 : 9 BLK END (60)** so that the vertical direction frame count is 11.75 for the light emitting section of the screen and at the same time the top and bottom block amounts are the same.  
**Note :** This must be done before the 16 : 9 V-SIZE adjustment.
8. Input a 625 monoscope signal.
9. Adjust **V BLK (50)** in the same manner as in 5 above.

10. Adjust **16 : 9 BLK START (50)** and **16 : 9 BLK END (50)** in the same manner as in 7 and 8 above so that the vertical direction frame count is 11.2 for the light emitting section of the screen and at the same time the top and bottom block amounts are the same.

4-2. V-BLK Adjustment (PVM-1450QM only)

- 1. Put the unit into service mode.
- 2. Input an adjustment value of **116** for **60-V BLK**.
- 3. Input an adjustment value of **66** for **55-V BLK**.

5. VERTICAL DEFLECTION SECTION Adjustment

\* PVM-1450QM has no 16 : 9 mode.

Normal V. Size Standards

		525	625
4 : 3		11.75 ± 0.2 frames	11.2 ± 0.2 frames
16 : 9	14"	154 ± 2mm	←
	20"	217 ± 3mm	←

- 1. Input a 525 monoscope signal.
- 2. Set :  
CONT..... 80%  
BRT..... 50%
- 3. Put the unit into service mode.
- 4. Adjust the size to 12 frames with **NOR 60 V SIZE**.  
Adjust the vertical linearity with **V LIN**.  
Adjust the vertical centering with **60 V CENT**.  
**Note :** The V.CENT adjustment must be re-evaluated after the V.LIN adjustment.  
Adjust the size to the standard value with **NOR 60 V SIZE**.
- 5. Put the unit into 16 : 9 mode.
- 6. Adjust in the same manner with **16 : 9 NOR V SIZE (60)**.
- 7. Put the unit into normal scan mode.
- 8. Input a 625 monoscope signal.
- 9. Roughly adjust **NOR 50V SIZE** so that the size is 11 frames.  
Adjust the vertical centering with **50 V CENT**.  
**Note :** The V.CENT adjustment must be re-evaluated after the V.LIN adjustment.  
Adjust the size to the standard value with **NOR 50 V SIZE**.
- 10. Put the unit into 16 : 9 mode.
- 11. Adjust in the same manner with **16 : 9 NOR V SIZE (50)**.

6. HORIZONTAL DEFLECTION SECTION ADJUSTMENT  
NORMAL SCAN Adjustment

\* PVM-1450QM has no 625 mode.

- 1. Input a 525 monoscope signal.
- 2. Set :  
CONT..... 80%  
BRT..... 50%
- 3. Put the unit into service mode.
- 4. Roughly adjust **NOR H SIZE** so that the size is 15.75 frames.
- 5. Adjust the horizontal deflection section with

**NOR PIN AMP**, **NOR PIN PHASE**, **NOR U/L PIN**, **SEXY**, **V BOW** and **V ANGLE**.

(While adjusting the pincushion distortion and bow distortion with V-ANGL and BOW, adjust so that the horizontal and vertical of the screen are straight lines.)

- 6. Put the unit into 16 : 9 mode.
- 7. Adjust with **16 : 9 NOR PIN AMP**, **16 : 9 NOR PIN PHASE**, and **16 : 9 NOR U/L PIN** in the same manner as in Item 5.

Normal H.Size Standards

	525	625
4 : 3	15.75 ± 0.2 frames	15.0 ± 0.2 frames
16 : 9	15.75 ± 0.2 frames	15.0 ± 0.2 frames

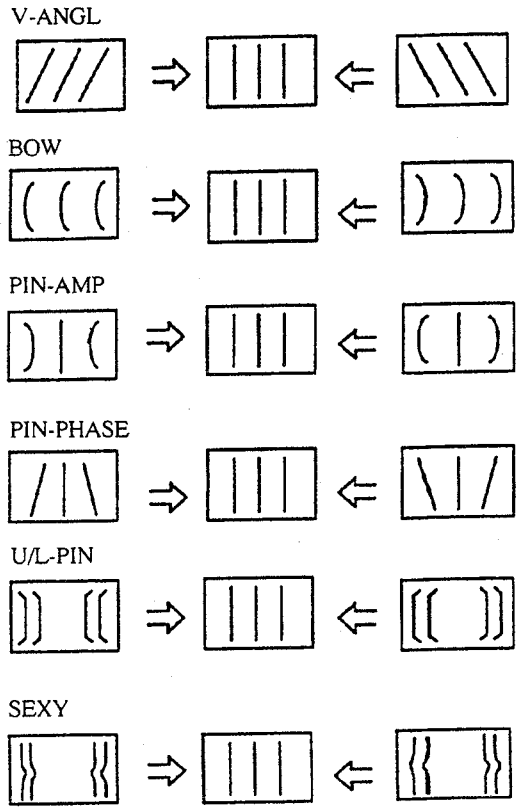


Fig. 4

## 7. HORIZONTAL DEFLECTION SECTION Adjustment (UNDER SCAN adjustment) (PVM-1454QM only)

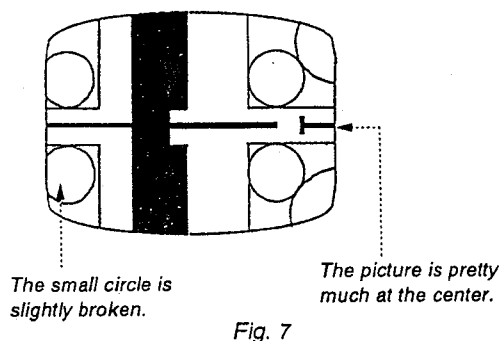
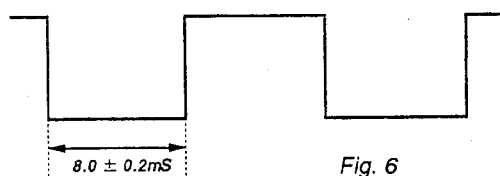
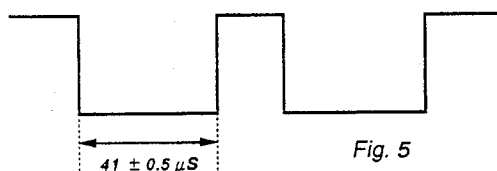
Standard value

	525	625
U/S H-SIZE	$252 \pm 2\text{mm}$	←
V-SIZE	$188 \pm 2\text{mm}$	←
16:9		
U/S V-SIZE	$142 \pm 2\text{mm}$	←

## 8. H/V DELAY Adjustment

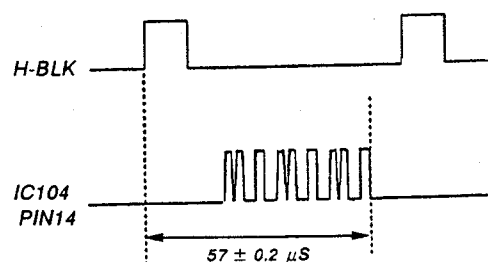
- H-DELAY adjustment
  - Input a 525 monoscope signal.
  - Set :
    - CONT ..... 80%
    - BRT ..... 50%
  - Put the unit into H/V DELAY mode.
  - Put the unit into service mode.
  - Connect the oscilloscope probe to IC503 Pin 7, then adjust **H DELAY** so that the waveform is as in Fig. 5.
- V-DELAY Adjustment
  - Input a 525 monoscope signal.
  - Set :
    - CONT ..... 80%
    - BRT ..... 50%
  - Put the unit into H/V DELAY mode.
  - Put the unit into service mode.
  - Connect the oscilloscope probe to IC502 Pin 7, then adjust **V DELAY** so that the waveform is as in Fig. 6.
- Picture verification (PVM-1454QM only)
 

Verify that the picture is as in Fig. 7.



## 9. OSD POSITION Adjustment

- Input a 525 color bar signal.
- Connect the oscilloscope probes to TP300 (H-BLK) and IC104 Pin 14.
- Adjust **OSD POSITION** so that the gap between the rising edge of the H-BLK waveform and the right edge character (the right edge of the " " for service mode **OSD POSITION**) is :  $57 \mu\text{S} \pm 0.2 \mu\text{S}$



## 10. WRITING THE ADJUSTMENT

- Write the adjustment results into memory.
- Note :** If you cut off the power before writing, the results of your adjustments are all lost.

## III. SIGNAL SYSTEM ADJUSTMENT

### 1. NORMAL AND H/V DL SUB CON ADJUSTMENT

\* PVM-1450QM has neither 16 : 9 nor H/V-DL.

1. Input a vertical white line signal.

**Note :** Use a vertical white line signal

(525 no burst, H width 3 $\mu$ S, 100IRE).

2. Set :

CONT..... 80%

BRT.....50%

3. Connect the oscilloscope probe to A board CN401 Pin 3.

4. Put the unit into service mode.

5. Provisionally input an adjustment value of 69 for SUB BRT.

6. Adjust the pedestal or the distance between the sync tip and white with SUB CON (4 : 3 NOR), SUB CON (4 : 3 H/V DELAY), SUB CON (16 : 9 NOR), and SUB CON (16 : 9 H/V DELAY).

SUB CON (4 : 3 NOR).

SUB CON (16 : 9 NOR)

SUB CON (4 : 3 H/V DELAY)

SUB CON (16 : 9 H/V DELAY)

(Fig. 9)

(Fig. 10).

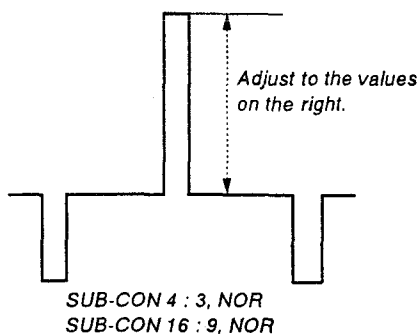


Fig. 9

	20"	14"	
		PVM-1454QM	PVM-1450QM
4 : 3	1.55 Vp-p	1.50 Vp-p	1.40 Vp-p
16 : 9	1.40 Vp-p	1.33 Vp-p	1.24 Vp-p

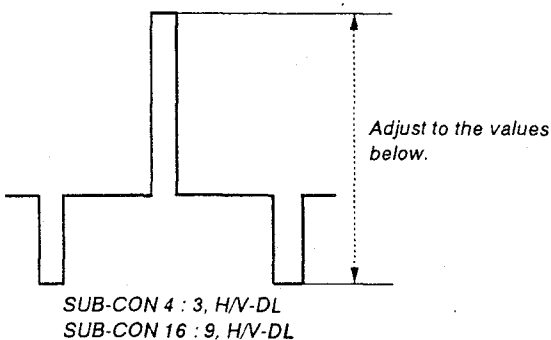


Fig. 10

	20"	14"	
		PVM-1454QM	PVM-1450QM
4 : 3	1.55 Vp-p	1.50 Vp-p	1.40 Vp-p
16 : 9	1.40 Vp-p	1.33 Vp-p	1.24 Vp-p

### 2-1. SUB PHASE Adjustment (PVM-1454QM only)

1. Input a component color bar (R-Y) and EXT SYNC (Beta 0 level signal).
2. Put the unit into Ext Sync mode.
3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
4. Put the unit into service mode.
5. Adjust SUB PHASE to minimize the output waveform (15 mVp-p max.) (Fig. 11)

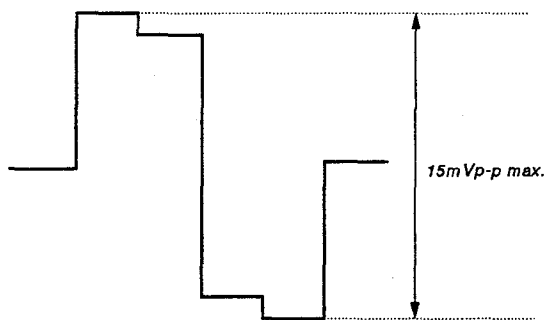


Fig. 11

### 2-2. SUB PHASE Adjustment (PVM-1450QM only)

1. Input a NTSC color bar signal.
2. Connect between L309 and ground and between TP507 and a 5V line (L320 line).
3. Put the unit into service mode.
4. Adjust SUB PHASE to minimize the output waveform (15 mVp-p max.) (Fig. 11)

### 3-1. SUB CHROMA Adjustment (PVM-1454QM only)

1. Input a component color bar (R-Y, Y, B-Y). (Beta 0 level signal).
2. From the menu, make the Component Level Beta 0.
3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
4. Put the unit into service mode.
5. Using SUB CHROMA NORMAL, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 12)

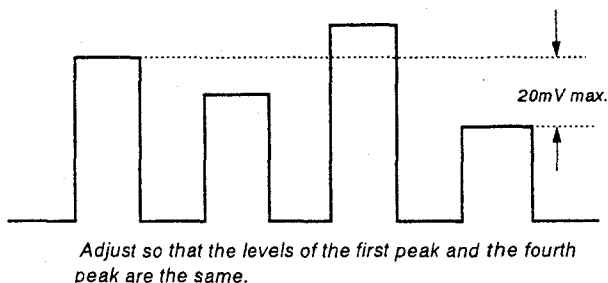


Fig. 12

### 3-2. SUB CHROMA Adjustment (PVM-1450QM only)

1. Put the unit into service mode.
2. Input an adjustment value of 98 for SUB CHROMA NORMAL. (Fig. 12)

#### 4. R-Y LEVEL ADJUSTMENT (PVM-1454QM only)

1. Input a component color bar (R-Y, Y, B-Y). (Beta 0 level signal).
2. From the menu, make the Component Level Beta 0.
3. Connect the oscilloscope probe to IC404 Pin 41 or TP401.
4. Put the unit into service mode.
5. Using **R-Y LEVEL COMPONENT**, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 13)

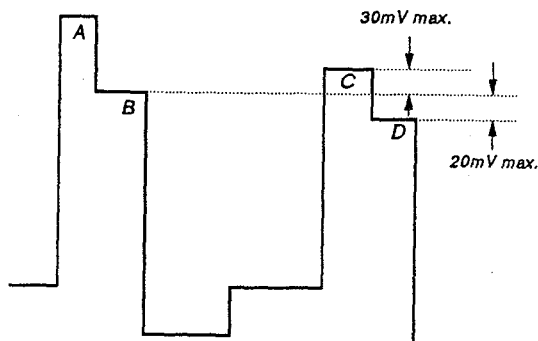


Fig. 13

Adjust so that B=D above (20 mV max.) Check that the difference between D and C is no greater than 30 mV

#### 5. SUB CHROMA N10/SMPTE Adjustment (PVM-1454QM only)

1. Input a component color bar (R-Y, Y, B-Y). (SMPTE level signal).
2. From the menu, make the Component Level N10/SMPTE.
3. Connect the oscilloscope probe to IC404 Pin 30 or TP402.
4. Put the unit into service mode.
5. In the same manner as in 4-5, adjust **SUB CHROMA N10/SMPTE**.

#### 6. BURST GATE PULSE WIDTH Adjustment

1. Input an NTSC color bar.
2. Connect the oscilloscope probes to TP301 (COMP-SYNC) and Q363 or IC305 Pin 1. (Be careful! IC305 Pin 1 is a high-impedance line.)
3. Put the unit into service mode.
4. Adjust **BGP WIDTH** so that the output waveform has the relationship shown in Fig. 14.

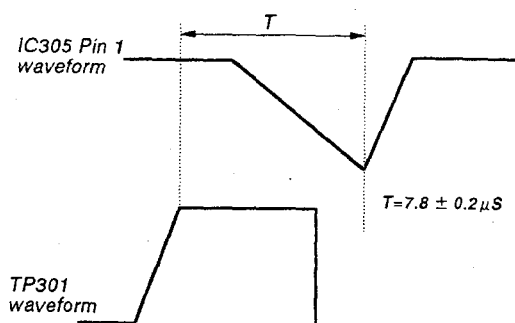


Fig. 14

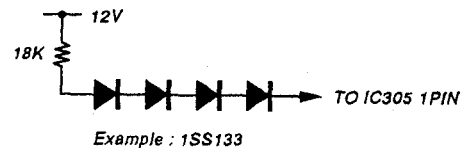
#### 7. VXO Adjustment

##### 1. X'tal 358

- 1) Input an NTSC color bar.
- 2) Connect the frequency counter to IC305 Pin 21.
- 3) Put the unit into service mode.
- 4) Connect the circuit on the right to IC305 Pin 1.
- 5) Adjust **CRYSTAL 358** so that the counter reading meets the standard below. (You can also just adjust for where the color flicker stops.)

##### X'tal 358

Standard level  $3.579545 \pm 20\text{Hz}$



(For connecting to Pin 1, have the four diodes as close to Pin 1 as possible to reduce the length of the wires.)

##### 2. X'tal 443

- 1) Input a 443 NTSC color bar.
- 2) Connect the frequency counter to IC305 Pin 21.
- 3) Put the unit into service mode.
- 4) Connect to IC305 Pin 1 in the same manner as in 1-4).
- 5) Adjust Crystal 443 in the same manner as in 1-5).

##### X'tal 443

Standard level  $4.433619 \pm 20\text{Hz}$

#### 8. NTSC COLOR DEMODULATION Adjustment

- \* The adjustment in 8-1-3) is not necessary for PVM-1454QM.
- \* The adjustment in 8-1-4) is not necessary for PVM-1450QM.

##### 1. NT 358 PHASE (NORMAL)

- 1) Input an NTSC color bar.
- 2) Connect the oscilloscope probe to TP306.
- 3) Supply 4 VDC to IC305 Pin 4.
- 4) Put the unit into H/V delay mode.
- 5) Put the unit into service mode.
- 6) Adjust PHASE NTSC 358 NOR so that the output waveform burst section is a straight line. (Fig. 15)

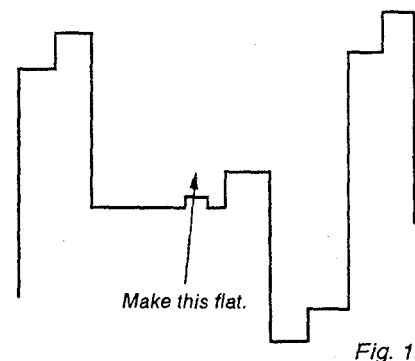


Fig. 15

##### 2. NT358 PHASE (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust in the same manner as in 8-1 above, but adjust with **PHASE NTSC 358 ACC OFF**. (Fig. 15)

## 3. NT358 B-Y PHASE

The phase adjustment must be carried out before the chroma adjustment.

- 1) Input an NTSC color bar.  
(Input only the R-Y component. Have B-Y and Y off.)
- 2) Connect the oscilloscope probe to TP305.
- 3) Put the unit into service mode.
- 4) Adjust **B-Y PHASE NTSC 358** so that the color components form a straight line.

## 4. NT358 CHROMA (NORMAL)

- 1) Input an NTSC color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 3) Put the unit into service mode.
- 4) Using **CHROMA NTSC 358 NOR**, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 16)

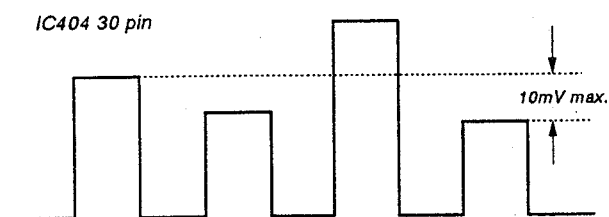


Fig. 16

Adjust so that the levels of the first peak and the fourth peak are the same.

## 5. NT 358 CHROMA (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust **CHROMA NTSC 358 ACC OFF** in the same manner as 8-4 above. (Fig. 16)

## 6. NTSC 358 R-Y LEVEL

- 1) Input an NTSC358 color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 3) Put the unit into service mode.
- 4) Using **R-Y LEVEL NTSC 358**, adjust so that the tops of the waveform line up as in the diagram below. (Fig. 17)

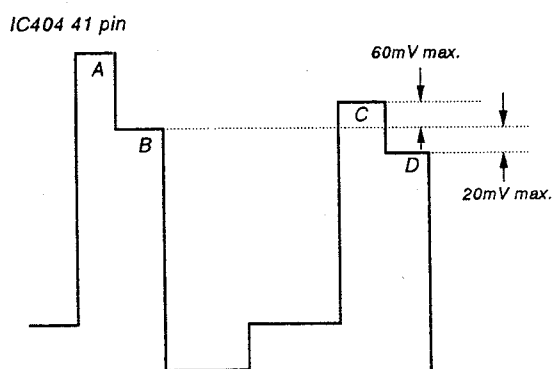


Fig. 17

Adjust so that B=D above (20 mV max.) Check that the difference between B and C is no greater than 60 mV.

## 7. NTSC 443 PHASE (NORMAL)

- \* The adjustment in 8-7-3) is not necessary for PVM-1454QM.
- \* The adjustment in 8-7-4) is not necessary for PVM-1450QM.

- 1) Input an NTSC 443 color bar.
- 2) Connect the oscilloscope probe to TP306.
- 3) Supply 4 VDC to IC305 Pin 4.
- 4) Put the unit into H/V delay mode.
- 5) Put the unit into service mode.
- 6) Adjust **PHASE NTSC 443 NOR** so that the output waveform burst section is a straight line. (Fig. 18)

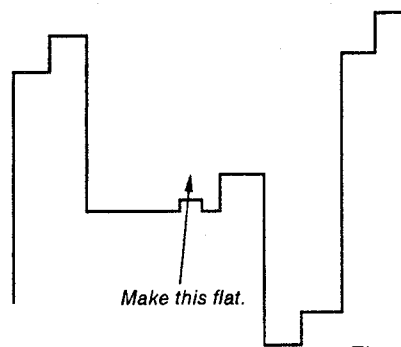


Fig. 18

## 8. NTSC 443 PHASE (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust **PHASE NTSC 443 ACC OFF** in the same manner as in 7-5). above. (Fig. 20)

## 9. NTSC 443 B-Y PHASE (PVM-1454QM only)

### NTSC 443 CHROMA NOR

- 1) Input an NTSC 443 color bar.
- 2) Connect the oscilloscope probe to TP402.
- 3) Put the unit into service mode.
- 4) Adjust **B-Y PHASE NTSC 443** and **CHROMA NTSC 443 NOR** so that the tracking is normal and the tops of the waveform line up. (Fig. 19)

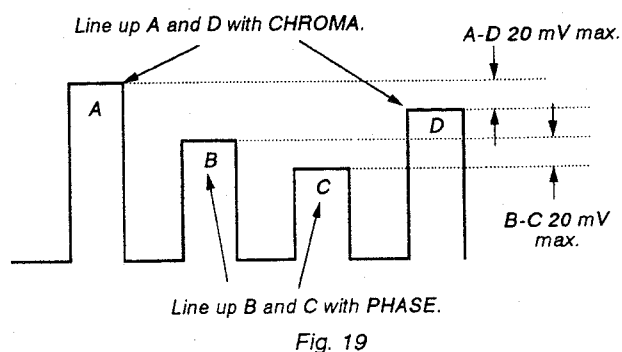


Fig. 19

## 10. NTSC 443 CHROMA (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust **CHROMA NTSC 443 ACC OFF** in the same manner as 9-4). (Fig. 22)

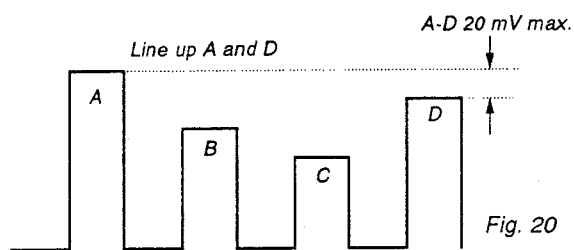


Fig. 20

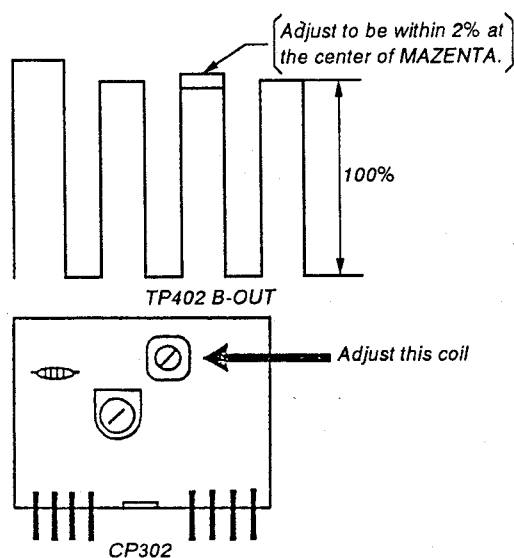
11. NTSC 443 R-Y LEVEL (PVM-1454QM only)

- 1) Input an NTSC 443 color bar.
- 2) Connect the oscilloscope probe to TP401.
- 3) Put the unit into service mode.
- 4) Adjust **R-Y LEVEL NTSC 443** in the same manner as 6-4). (Fig. 17)

12. PAL LINE CRAWLING (PVM-1450QM, PVM-1454QM)

**Note :** Perform before PAL PHASE ADJUSTMENT.

- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to TP402 (B-OUT).
- 3) Adjust the coil of CP302 so that the shaking of MAZENTA wave form become minimum.  
Do not touch the RV at this time.



13. PAL PHASE (NORMAL) (PVM-1454QM only)

- 1) Input a PAL SP color bar.
- 2) Connect the oscilloscope probe to TP306.
- 3) Put the unit into service mode.
- 4) Adjust **PHASE PAL NOR** so that the B-Y anti-PAL signal waveform is 0. (Fig. 21)

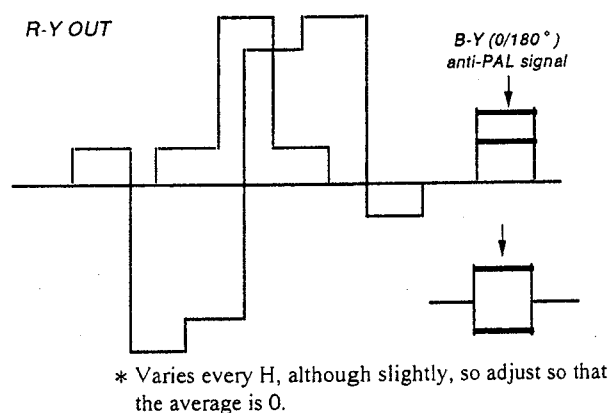


Fig. 21

14. PLL PHASE (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust **PHASE PAL ACC OFF** in the same manner as 12-4).

15. PAL B-Y PHASE (PVM-1454QM only)

- 1) Input a PAL SP color bar.
- 2) Connect the oscilloscope probe to TP305.
- 3) Put the unit into service mode.
- 4) Adjust **B-Y PHASE PAL** so that the B-Y anti-PAL signal waveform is 0. (Fig. 22)

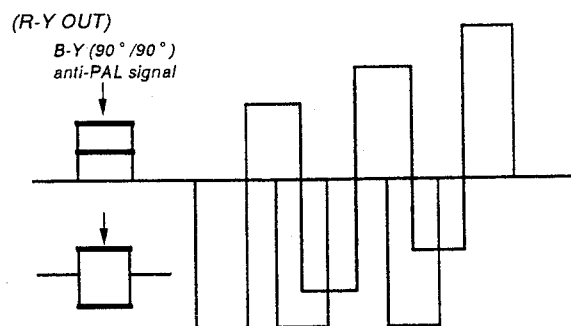


Fig. 22

16. PAL CHROMA (NORMAL) (PVM-1454QM only)

- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 3) Put the unit into service mode.
- 4) Adjust **CHROMA PAL NOR** so that the tops of the waveform line up. (Fig. 23)

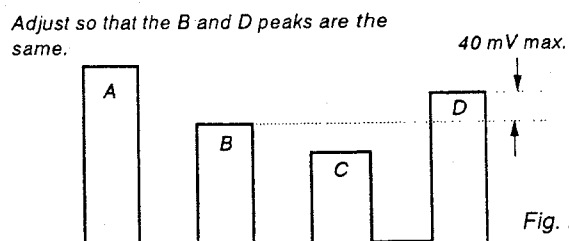


Fig. 23

## 17. PAL CHROMA (ACC OFF) (PVM-1454QM only)

- 1) Switch ACC Off with the menu.
- 2) Adjust **CHROMA PAL ACC OFF** in the same manner as 15.-4). (Fig. 23)

## 18. PAL R-Y LEVEL (PVM-1454QM only)

- 1) Input a PAL color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 3) Put the unit into service mode.
- 4) Adjust **R-Y LEVEL PAL** so that the tops of the waveform line up as in the diagram below. (Fig. 24)

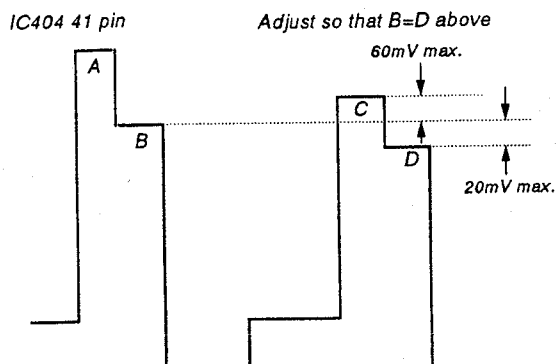


Fig. 24

## 9. SECAM Adjustmnet

\* This must be done after the deflection adjustment.

**Note :** Varies with H-FREQ, H-BLK, VIDEO-PHASE, ANGLE, BOW, H-DELAY, etc.

1. HP EIDTH (NORMAL) ADJUSMTNET (PVM-1454QM only)  
The board adjustment in 9.-1. is a rough adjustment and this may also be managed with the IC317 Pin 10 pulse width.

- 1) Input a SECAM color bar.
- 2) Put the unit into under scan mode.
- 3) Put the unit into service mode.
- 4) Adjust **HP WIDTH NOR** so that the color of the color section at the top left of the screen almost disappears.

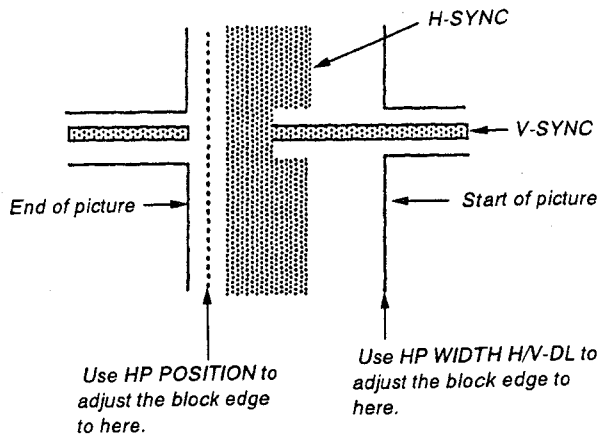
2. HP POSITIOM ADJUSMTNET (PVM-1454QM only)

**Note :** 9.-2. is the same as above. This adjustment can be managed with the phase relationship between the start of the pulse at IC317 Pin 10 and the input video signal.

- 1) Input a SECAM color bar.
  - 2) Put the unit into H/V delay mode.
  - 3) Put the unit into service mode.
  - 4) Adjust **HP POSITION** as in the diagram on the right.
3. HP WIDTH (H/V -DL) ADJUSMTNET (PVM-1454QM only)
- 1) Input a SECAM color bar.
  - 2) Put the unit into H/V delay mode.
  - 3) Put the unit into service mode.

4) Adjust HP WIDTH H/V DELAY as in the diagram below.

**Note :** Check the HP POSITION and if it is off, repeat 2 and 3.



## 4. SECAM COL BALANCE (PVM-1454QM only)

- 1) Input a SECAM color bar.
- 2) Connect the oscilloscope probe to TP306.
- 3) Put the unit into service mode.
- 4) Adjust **SECAM COLOR BALANCE R-Y** so that the non-color section forms a straight line.
- 5) Connect the oscilloscope probe to TP305.
- 6) Adjust **SECAM COLOR BALANCE B-Y** so that the non-color section forms a straight line.

## 5. SECAM CHROMA (PVM-1454QM only)

- 1) Input a SECAM color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 30 or TP402.
- 3) Put the unit into service mode.
- 4) Adjust **CHROMA SECAM** so that the tops of the waveform line up as in the diagram below. (Fig. 25)

IC404 30 pin

Adjust so that the B and D peaks are the same.

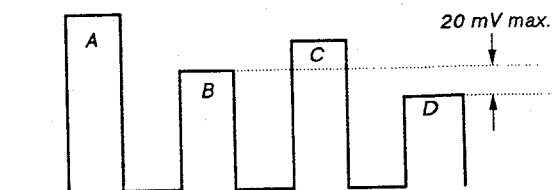
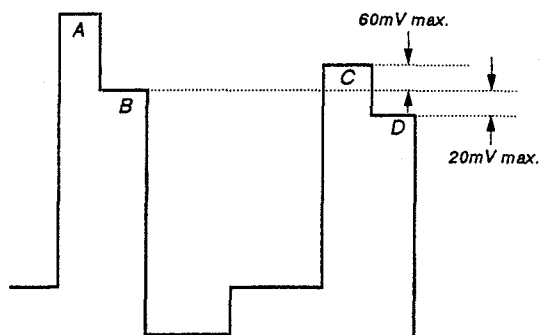


Fig. 25

## 6. SECAM R-Y LEVEL (PVM-1454QM only)

- 1) Input a SECAM color bar.
- 2) Connect the oscilloscope probe to IC404 Pin 41 or TP401.
- 3) Put the unit into service mode.
- 4) Adjust **R-Y LEVE SECAM** so that the tops of the waveform line up as in the diagram below. (Fig. 26)

IC404 41 pin



Adjust so that B=D above

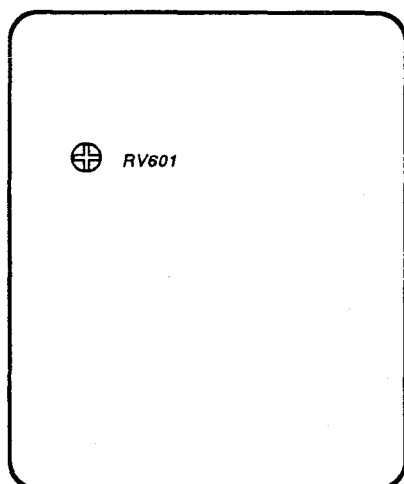
Fig. 26

## 10. Writing the adjustment results

1. Write the adjustment results into memory.

## 5-2. G BOARD ADJUSTMENT

G BOARD — COMPONENT SIDE —



### 1. Checking the output lines

- 1) Input a color bar signal.
- 2) Adjust RV601 so that the +B voltage is  $115 \pm 0.1$  V.
- 3) Check that the output lines meet the standards below.

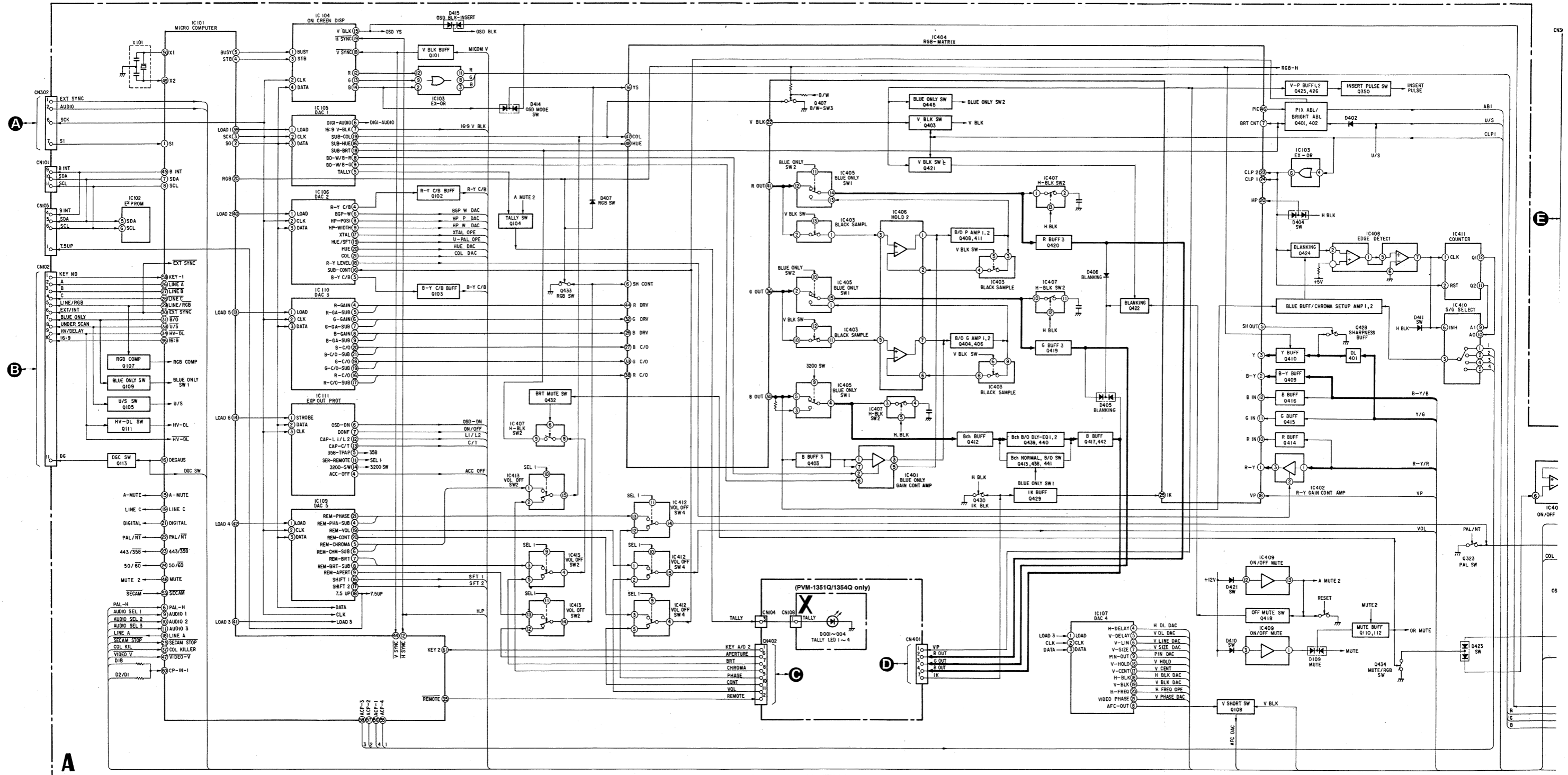
15V	$16.0 \pm 1.0$ V
5V(A)	$5.0 \pm 0.3$ V
5V(B)	$5.0 \pm 0.5$ V
7V	$7.2 \pm 0.5$ V
- 15V	$- 16.3 \pm 1.0$ V

MEMO

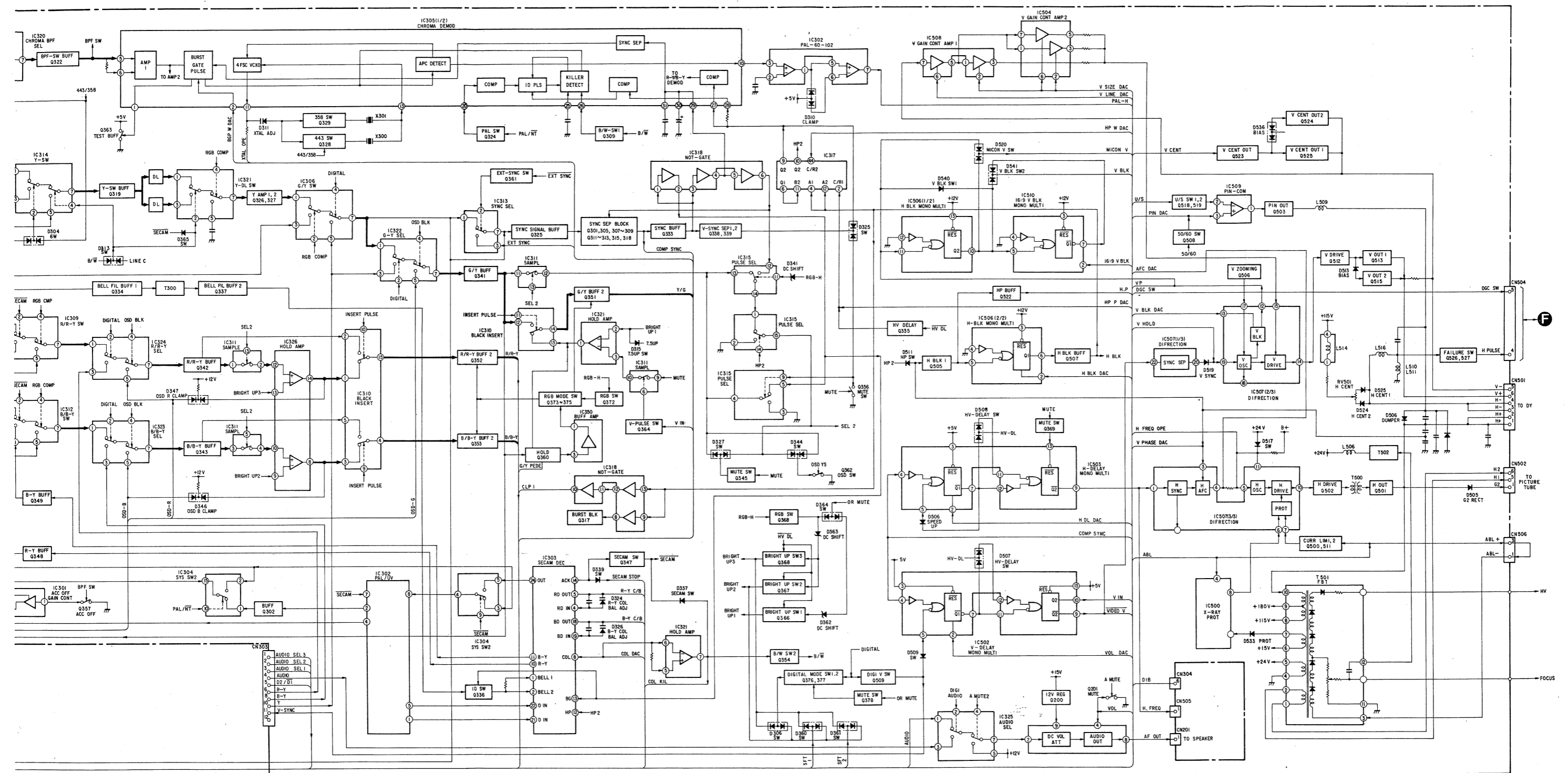
Handwriting practice area with horizontal dotted lines.

## SECTION 6 DIAGRAMS

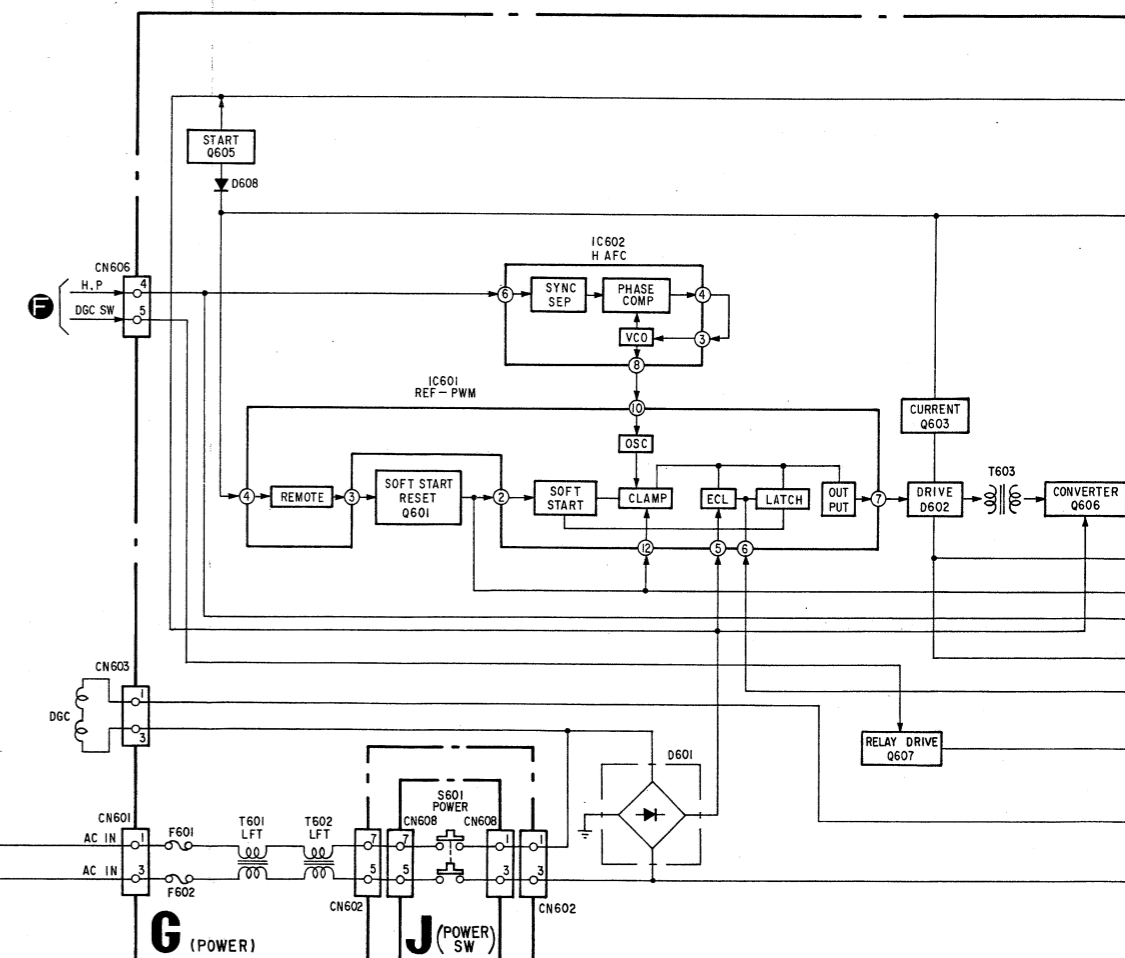
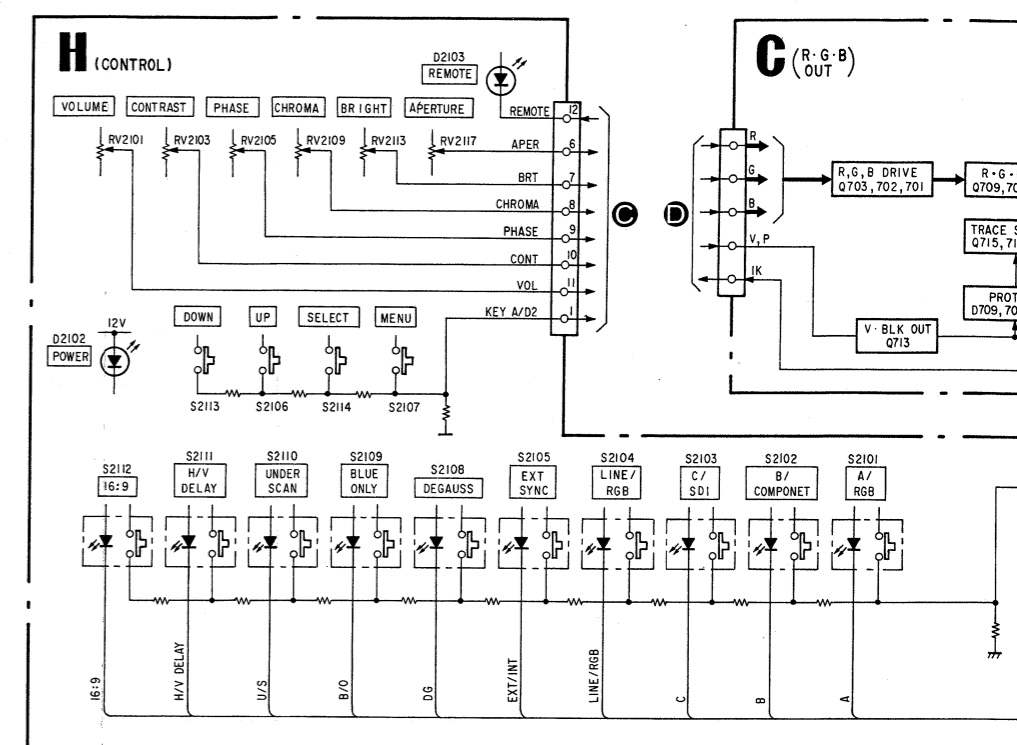
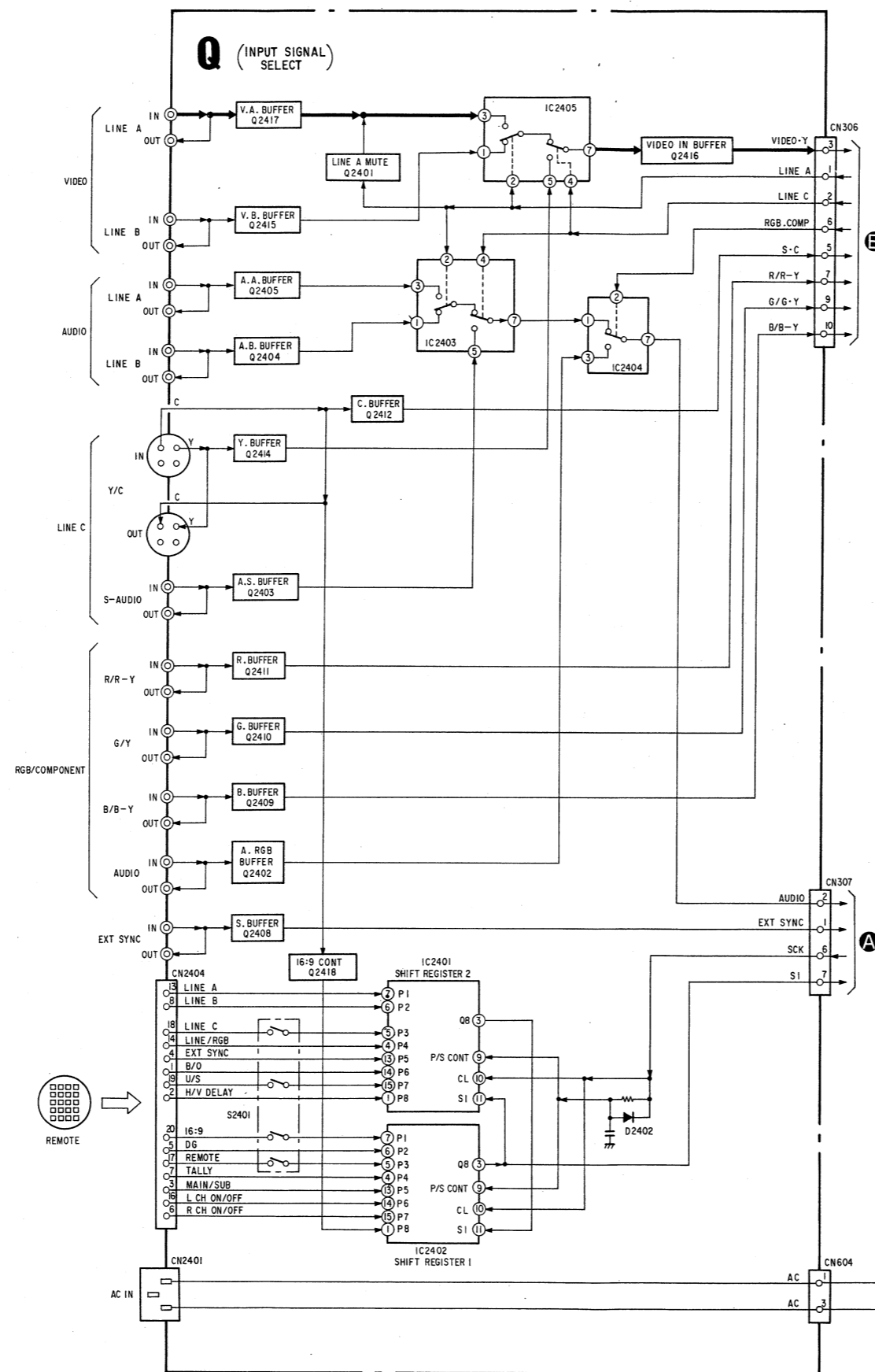
## 6-1. BLOCK DIAGRAMS (1)

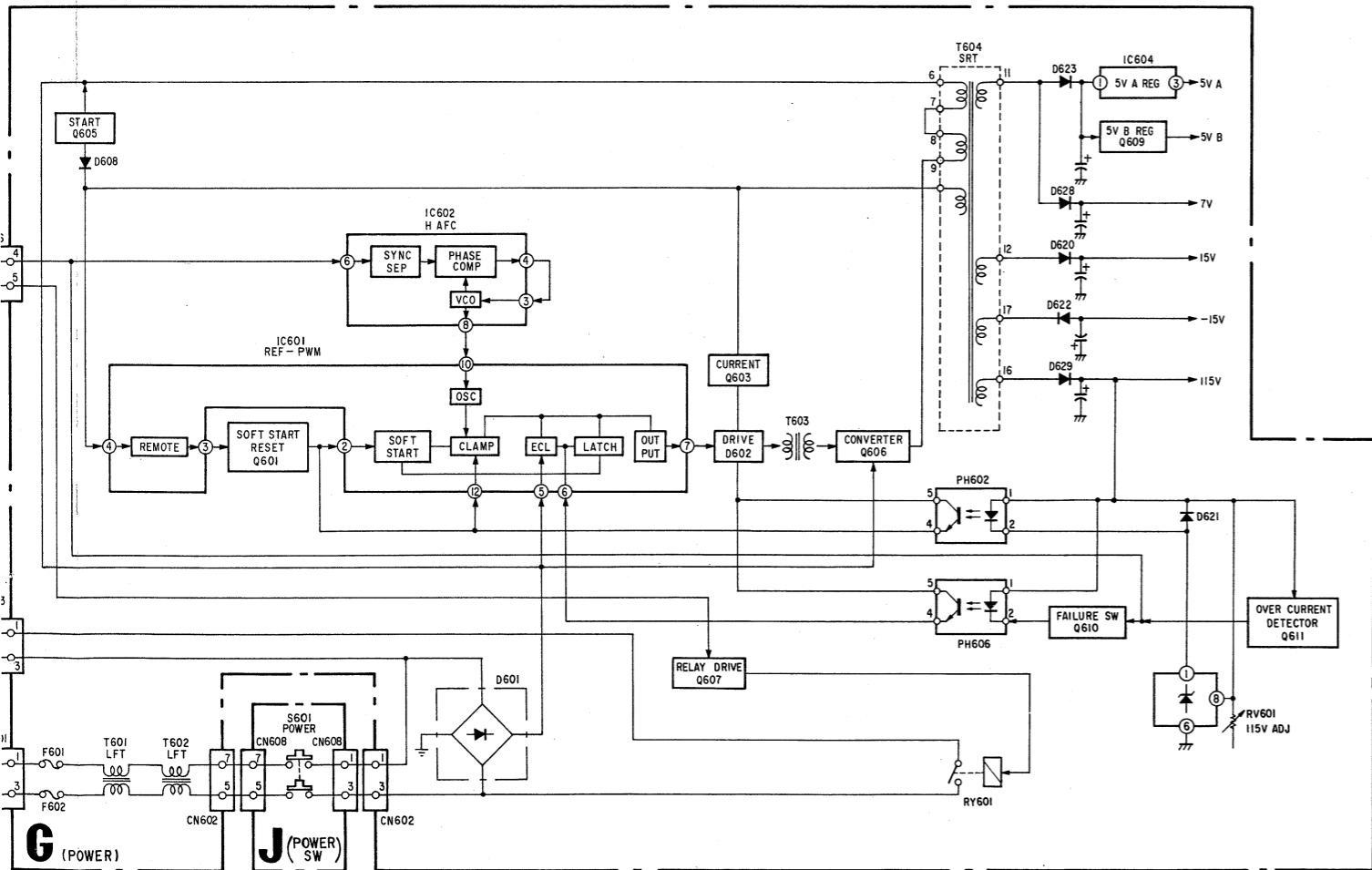
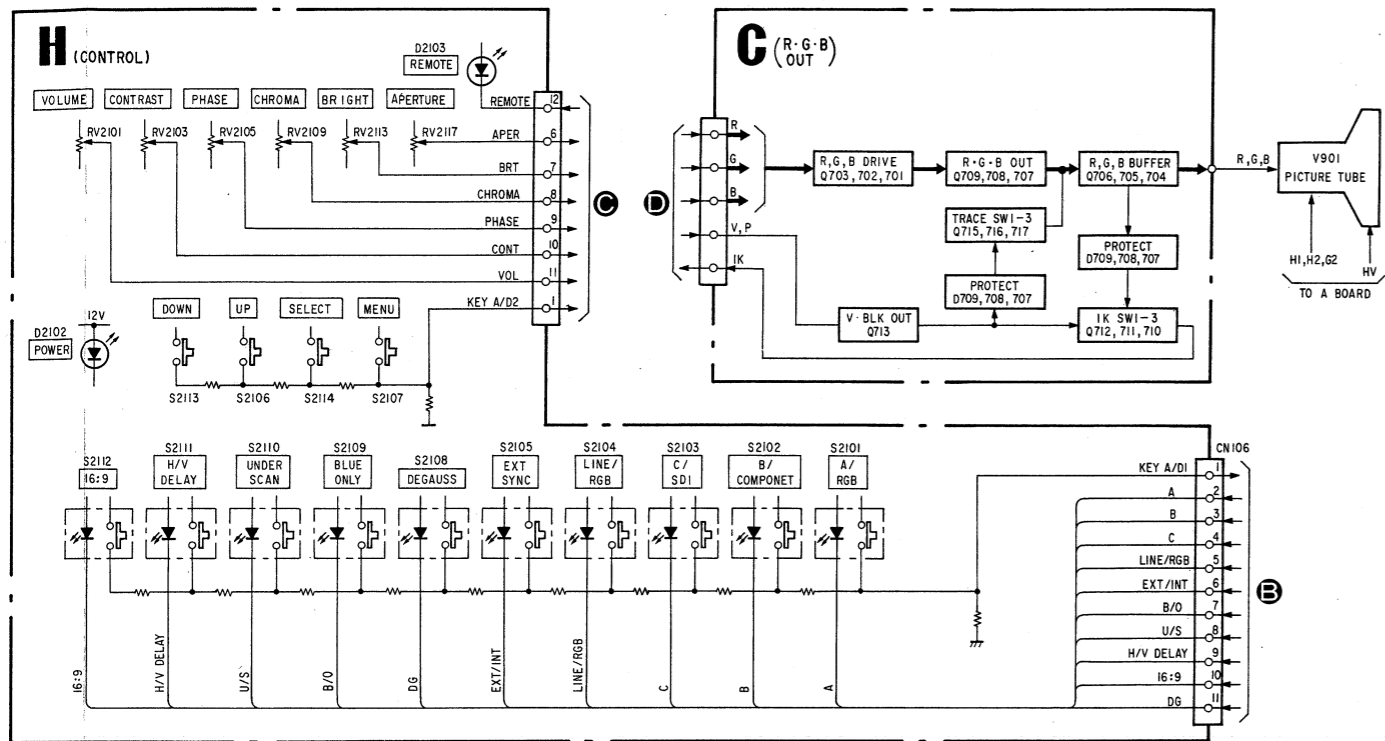






## BLOCK DIAGRAMS (2)

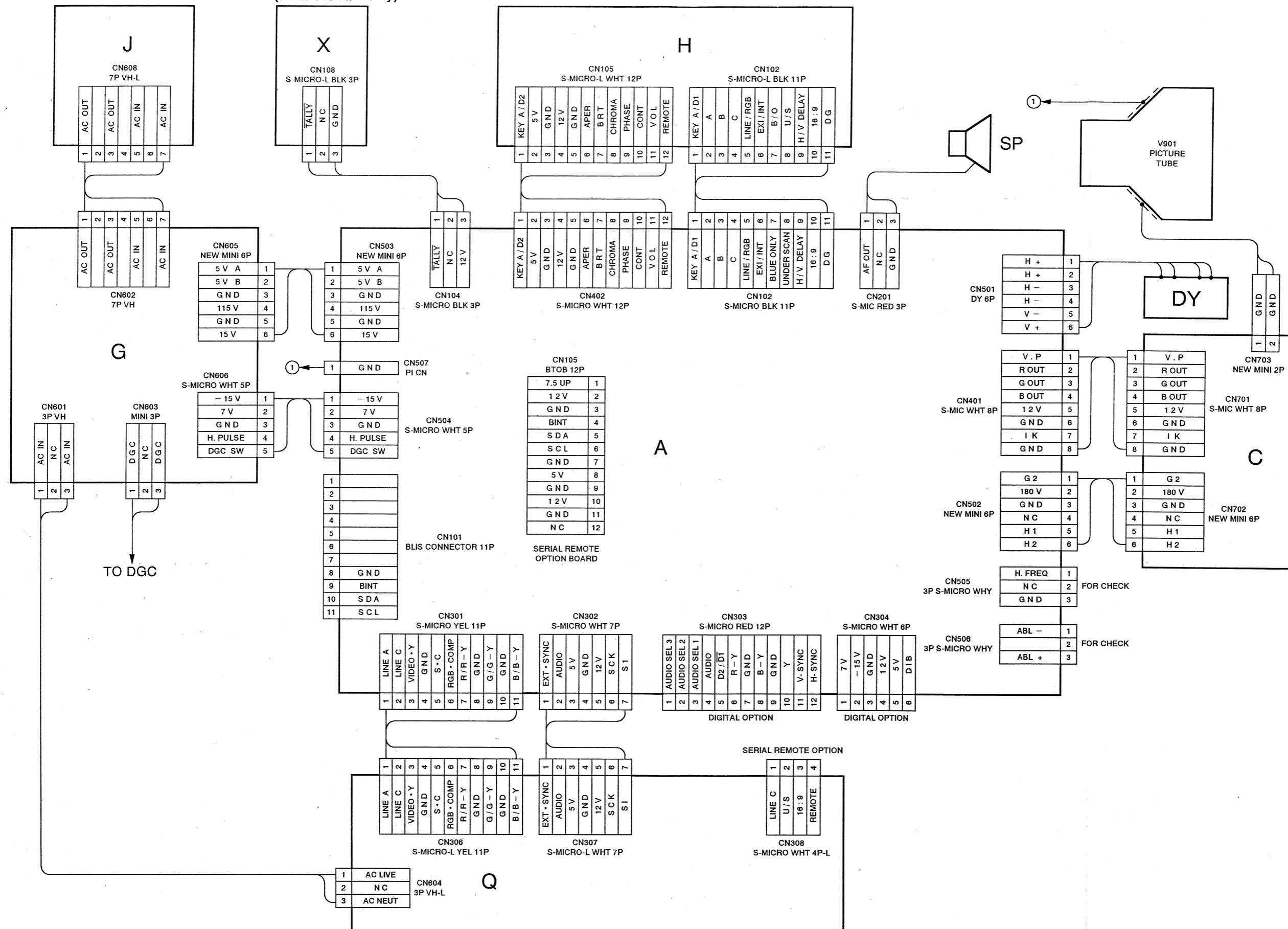




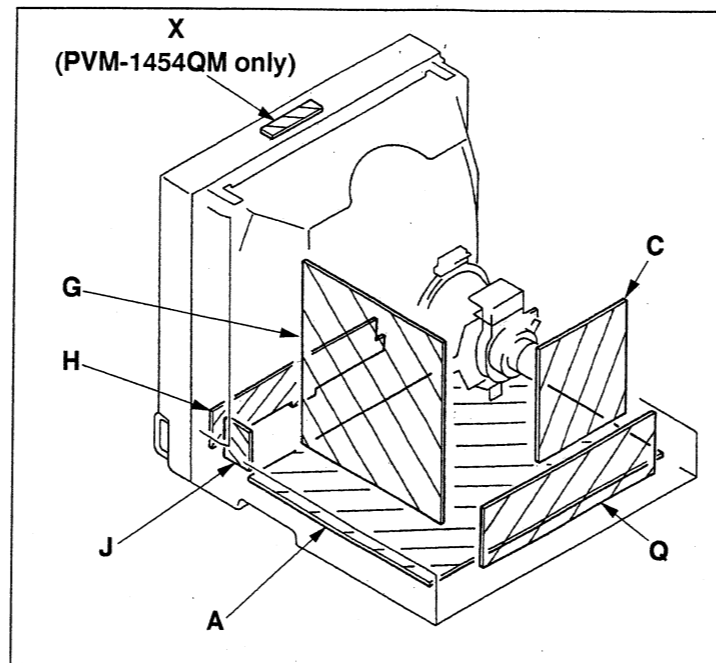
PVM-1450QM/1454QM PVM-1450QM/1454QM

6-2. FRAME SCHEMATIC DIAGRAM

(PVM-1454QM only)



## 6-3. CIRCUIT BOARDS LOCATION



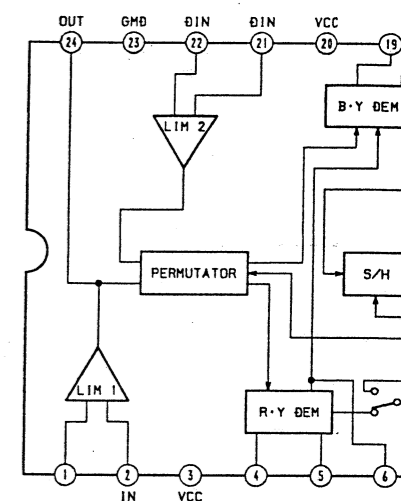
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- — : B + bus.
- - - - : B - bus.
- [hatched] : signal path.
- No mark : with PAL colour-bar signal received or common voltage.
- For the respective voltage ratings in SECAM, NTSC 3.58, NTSC 4.43, S-VIDEO, and ANALOG RGB modes, see the table

## Reference information

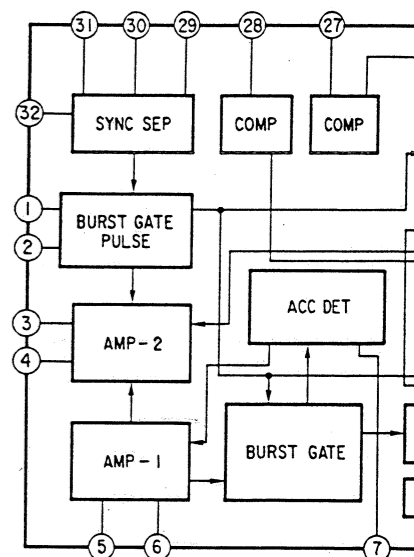
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

## A BOARD IC303 CXA1214P



## A BOARD IC305 M51279FP



## 6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

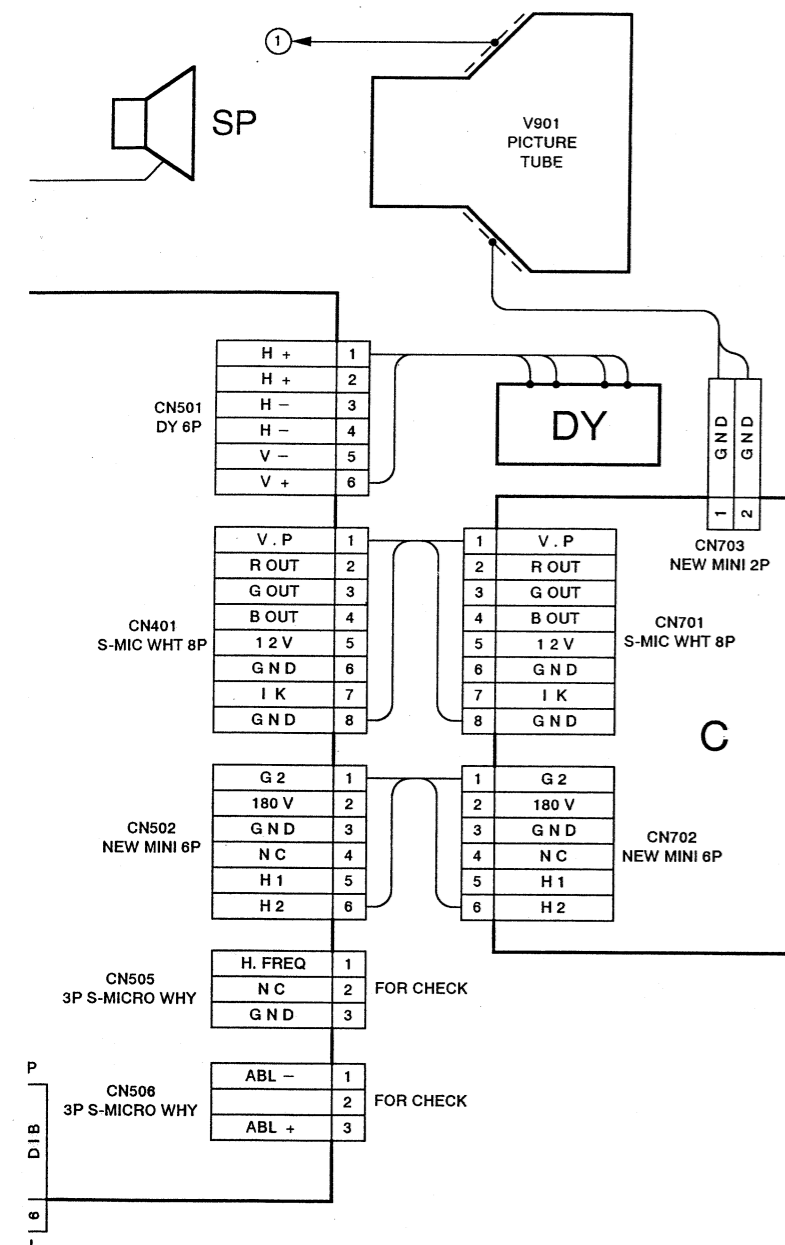
## Note:

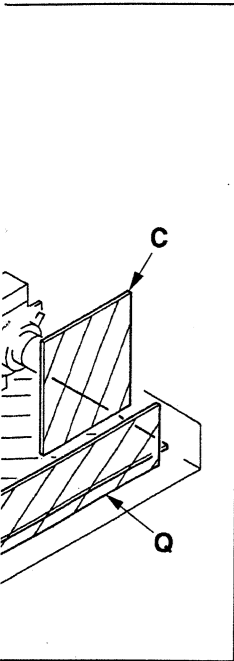
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{pF}$
- 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power  $\frac{1}{4}$  W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R690 adjust on Page 29 and 30.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
C506, C512, C513, C523, C549, C592, D501, D533, IC500, IC507, Q500, Q511, R506, R508, R515, R516, R517, R518, R519, R551, R1535, R1536, R1537, R1560, T501 ..... (A BOARD)	R1535, R1536 (HOLD-DOWN)
C603, IC602.....(G BOARD)	





- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- **—** : B + bus.
- **- - -** : B - bus.
- **|||||** : signal path.
- **No mark** : with PAL colour-bar signal received or common voltage.
- For the respective voltage ratings in SECAM, NTSC 3.58, NTSC 4.43, S-VIDEO, and ANALOG RGB modes, see the table

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

SCHEMATIC DIAGRAMS

pF:  $\mu$ F  
i.  
for rating

stic curve

chematic  
ch set in


he value

ake the  
meet the  
and  
chieved.

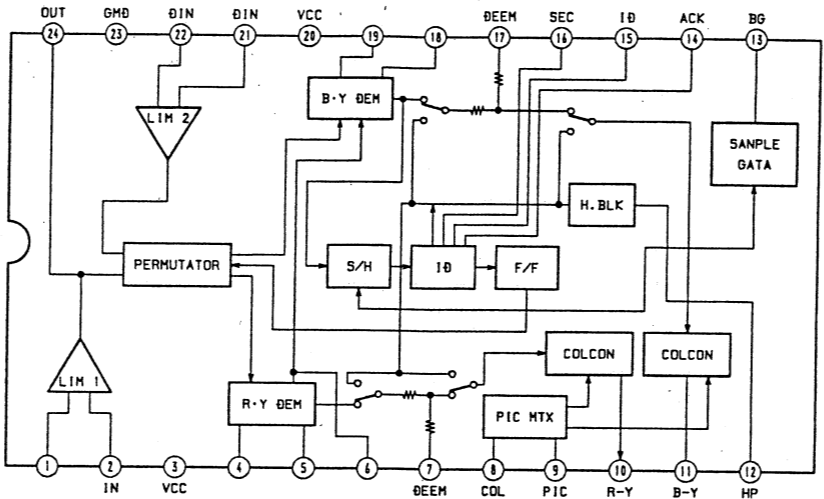
form the



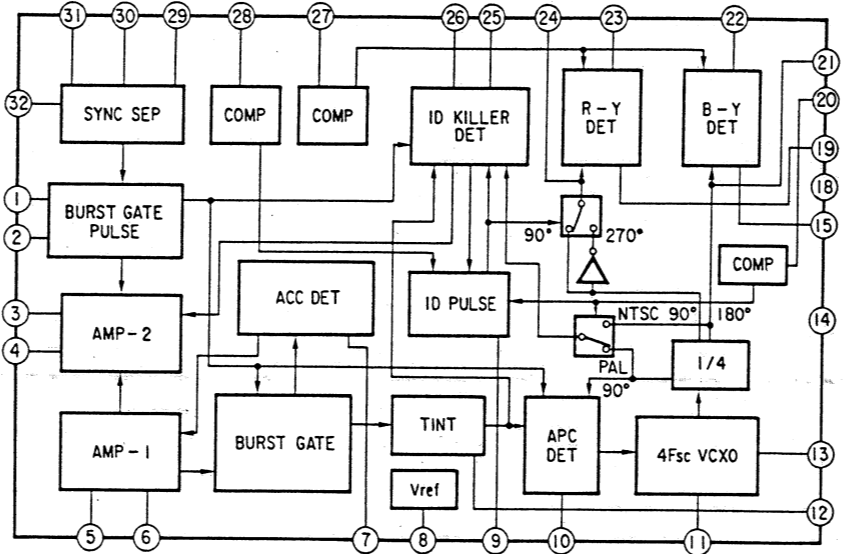
536  
WN)

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

A BOARD IC303 CXA1214P



A BOARD IC305 M51279FP



A

MICON, RGB-MATRIX, DAC,  
ON SCREEN DISPLAY, ON/OFF MUTE,  
VOL OFF SW, BLACK-SAMPLING, RGB SW

CHROMA DEMOD, SECAM CHROMA SELECT, SYSTEM SW,  
SYNC SELECT, B/B-Y SW, R/R-Y SW, G/Y SW,  
AUDIO SELECT, SECAM DECODER, HOLD AMP

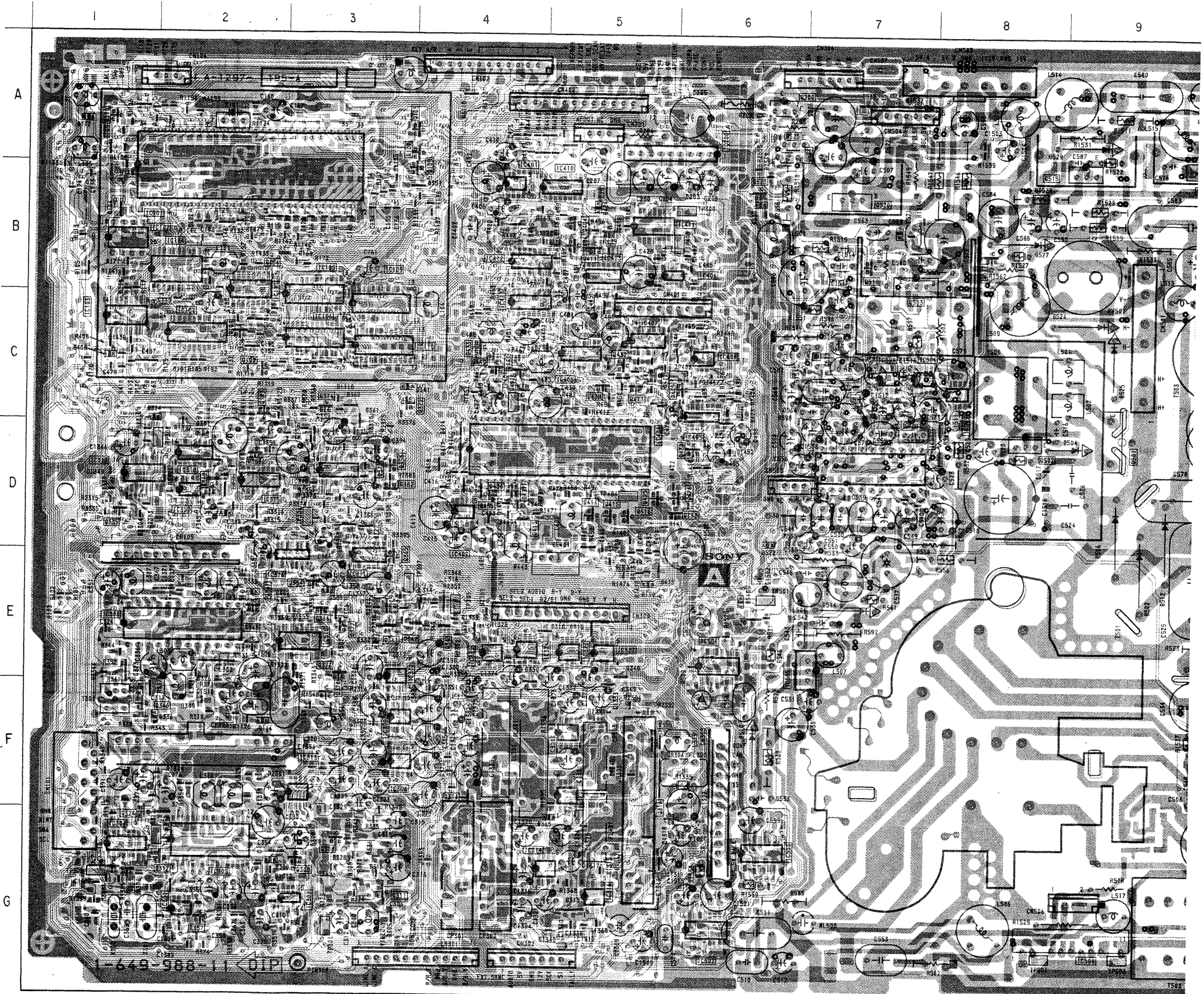
H/V OUT, DEFLECTION SYSTEM,  
AUDIO OUT

Note :  
• : Pattern from the side which  
• : Pattern of the rear side.

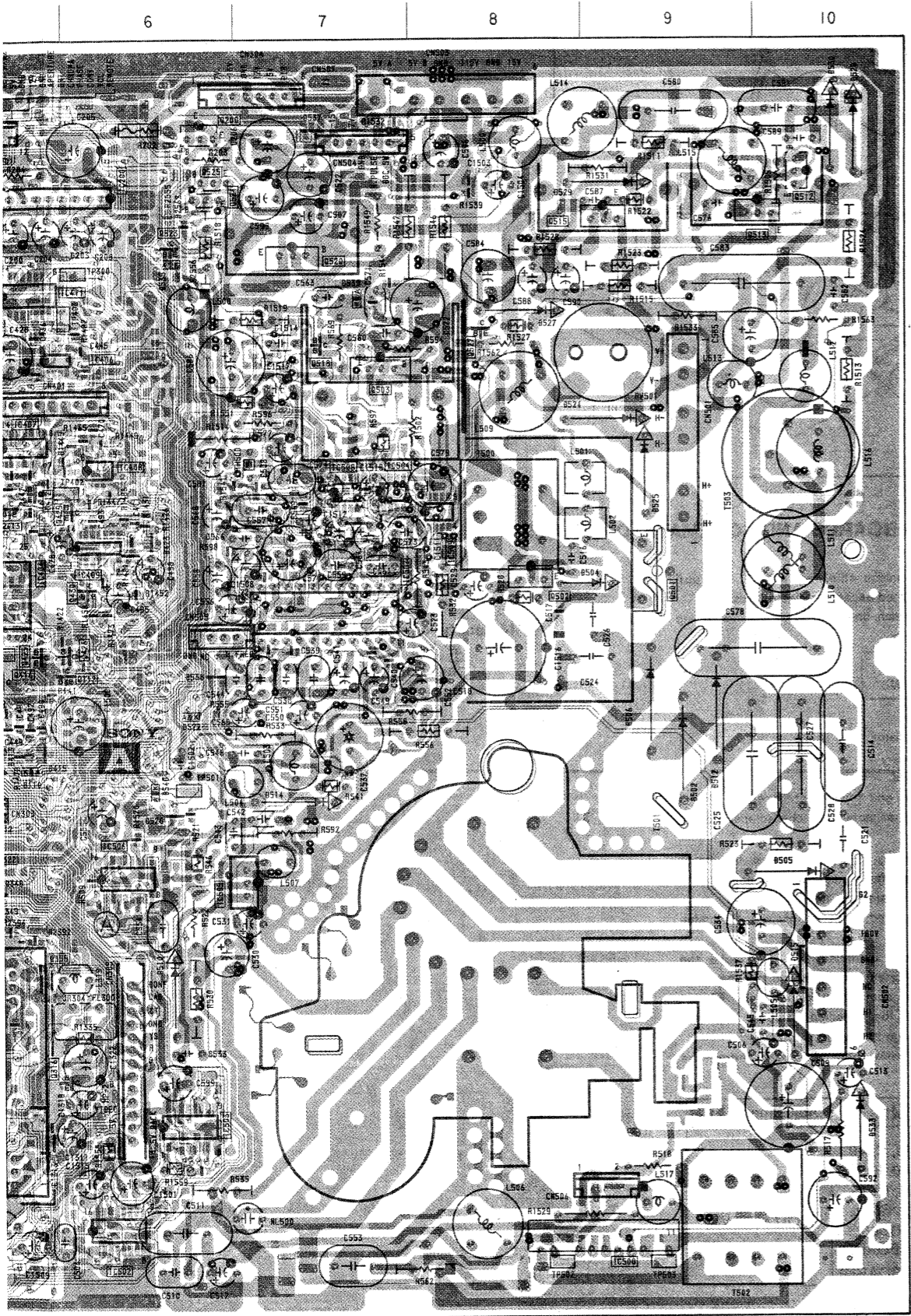
- A BOARD - (Component Side)

IC		TRANSISTOR		DIODE	
IC101	B-2	Q102	C-2	D104	B-1
IC102	B-1	Q103	C-2	D105	B-1
IC103	C-1	Q104	B-2	D109	A-1
IC104	B-1	Q105	A-3	D110	E-5
IC105	B-3	Q107	A-3	D112	A-1
IC106	C-3	Q108	C-2	D113	B-4
IC107	C-2	Q109	B-3	D114	F-2
IC109	C-3	Q110	A-1	D300	G-2
IC110	C-3	Q112	D-5	D301	D-2
IC111	B-2	Q200	A-6	D305	G-3
IC200	A-5	Q300	G-2	D313	G-5
IC301	G-2	Q308	G-3	D314	C-1
IC302	G-2	Q311	G-3	D318	E-4
IC303	E-1	Q314	F-4	D319	E-5
IC304	G-1	Q316	F-5	D327	D-3
IC305	G-2	Q324	G-1		
IC306	F-3	Q335	D-1		
IC309	F-3	Q341	E-3		
IC310	D-3	Q342	E-3		
IC311	E-3	Q343	E-4		
IC312	E-3	Q346	F-1		
IC313	F-2	Q347	E-2		
IC314	G-4	Q348	E-2		
IC315	D-2	Q353	D-3		
IC316	G-5	Q354	E-3		
IC317	D-1	Q355	F-5		
IC318	D-2	Q356	D-2		
IC320	F-5	Q357	G-2		
IC321	F-5	Q358	G-1		
IC322	E-5	Q359	G-1		
IC323	E-5	Q360	D-2		
IC324	E-4	Q362	D-3		
IC325	E-4	Q365	E-3		
IC326	E-2	Q366	E-3		
IC350	D-2	Q372	C-3		
IC401	B-4	Q373	D-3		
IC402	D-4	Q374	C-3		
IC403	B-5	Q404	B-5		
IC404	D-4	Q406	B-5		
IC405	C-5	Q408	B-5		
IC406	B-5				
IC407	C-5				
IC408	C-6				
IC409	C-6				
IC410	B-4				
IC411	B-5				
IC412	B-4				
IC413	C-4				
IC502	G-6				

NOTE:  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



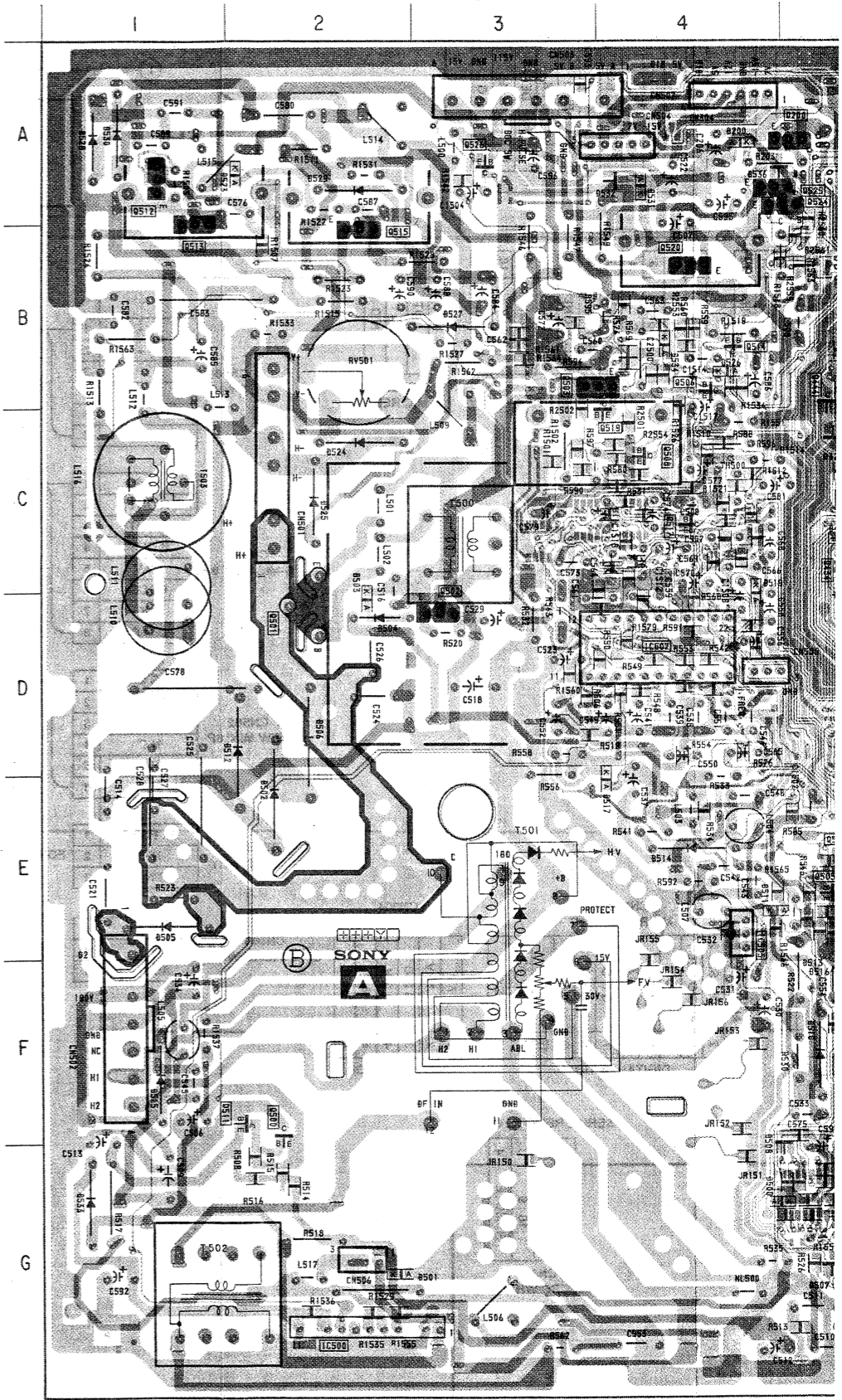
Note :  
• : Pattern from the side which enables seeing.  
• : Pattern of the rear side.



CONDUCTOR SIDE

IC		Q345	D-8	Q517	C-4	D408	B-5
IC101	A-9	Q349	E-9	Q519	C-4	D410	C-5
IC102	B-10	Q350	D-8	Q520	B-4	D411	B-6
IC108	B-8	Q351	D-8	Q522	E-5	D421	C-5
IC200	A-5	Q352	D-8	Q524	A-5	D422	C-5
IC303	E-9	Q361	F-8	Q525	A-4	D425	C-5
IC404	D-6	Q363	G-9	Q526	A-3	D426	C-6
IC505	E-4	Q364	D-8	DIODE		D427	B-6
IC507	D-4	Q367	E-8			D500	G-5
TRANSISTOR		Q368	E-8	D101	B-10	D501	G-2
Q101	A-9	Q369	E-8	D102	B-9	D502	E-2
Q111	C-10	Q375	D-8	D103	B-9	D503	C-2
Q113	A-7	Q401	B-6	D107	B-9	D504	D-2
Q201	A-6	Q402	B-6	D200	A-4	D505	E-1
Q301	G-8	Q403	B-6	D301	G-8	D506	D-2
Q302	G-10	Q405	C-6	D302	F-9	D507	G-5
Q303	G-6	Q407	C-7	D303	F-7	D508	G-5
Q304	G-6	Q409	D-7	D304	G-7	D509	G-5
Q305	G-8	Q417	C-6	D307	G-8	D510	F-5
Q306	G-7	Q418	B-5	D309	G-8	D512	D-2
Q307	G-8	Q419	C-6	D310	G-8	D513	E-5
Q309	G-8	Q420	C-6	D311	G-9	D514	E-4
Q310	G-7	Q421	B-5	D315	E-8	D515	F-1
Q312	G-8	Q422	B-5	D317	D-9	D516	F-5
Q313	G-8	Q423	C-5	D320	D-9	D517	D-4
Q315	G-8	Q424	C-5	D322	D-9	D518	E-5
Q318	G-8	Q428	D-6	D323	C-9	D519	C-4
Q319	F-7	Q431	B-5	D324	E-9	D522	A-4
Q321	G-8	Q434	C-5	D325	D-8	D523	A-2
Q323	G-10	Q439	C-6	D326	E-9	D524	C-2
Q325	F-8	Q443	C-5	D333	D-8	D525	C-2
Q326	F-6	Q444	B-5	D337	E-8	D526	B-4
Q327	F-6	Q500	F-2	D344	D-8	D527	B-3
Q328	G-9	Q501	D-2	D345	E-7	D528	A-1
Q329	G-9	Q502	D-3	D346	E-7	D529	A-2
Q330	F-9	Q503	B-3	D347	E-7	D530	A-1
Q331	F-9	Q505	E-5	D353	D-8	D531	A-4
Q332	G-10	Q506	B-4	D354	B-7	D532	A-4
Q333	D-9	Q507	E-5	D355	C-7	D533	G-1
Q334	F-9	Q508	C-4	D363	E-8	D534	B-4
Q336	E-10	Q509	G-5	D364	E-8	D536	A-5
Q337	E-10	Q511	F-2	D401	B-7	VARIABLE RESISTOR	
Q338	C-9	Q512	A-1	D404	D-6		
Q339	D-8	Q513	A-1	D405	B-5	RV501	B-2
		Q514	B-4	D407	D-7		
		Q515	B-2				

- A BOARD - (Conductor Side)

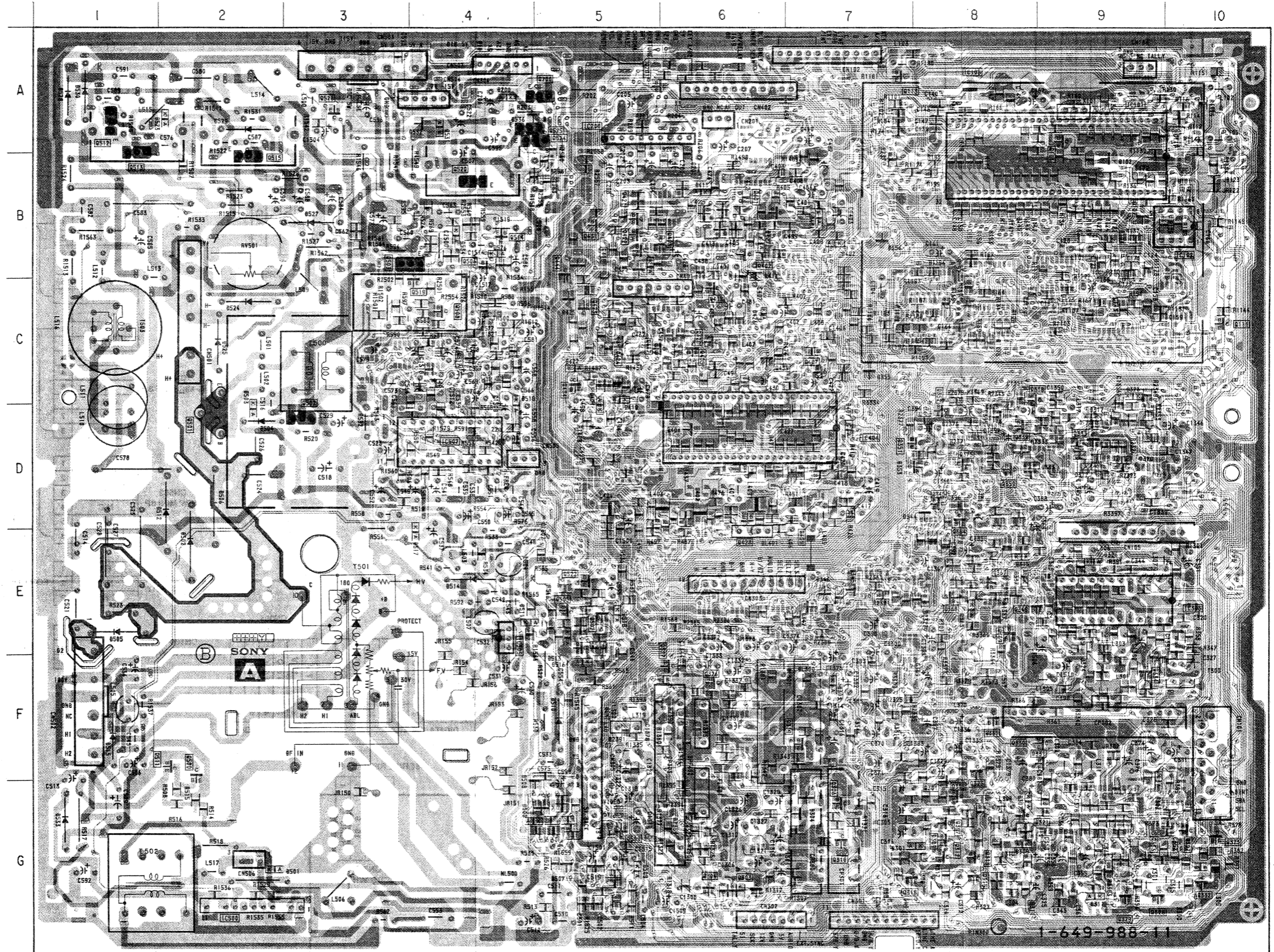


Note:

- Pattern from the side which enables seeing.
- Pattern of the rear side.

— A BOARD — (Conductor Side)

IDE					
Q345	D-8	Q517	C-4	D408	B-5
Q349	E-9	Q519	C-4	D410	C-5
Q350	D-8	Q520	B-4	D411	B-6
Q351	D-8	Q522	E-5	D421	C-5
Q352	D-8	Q524	A-5	D422	C-5
Q361	F-8	Q525	A-4	D425	C-5
Q363	G-9	Q526	A-3	D426	C-6
Q364	D-8			D427	B-6
Q367	E-8	DIODE		D500	G-5
Q368	E-8	D101	B-10	D501	G-2
Q369	E-8	D102	B-9	D502	E-2
Q375	D-8	D103	B-9	D503	C-2
Q401	B-6	D107	B-9	D504	D-2
Q402	B-6	D200	A-4	D505	E-1
Q403	B-6	D301	G-8	D506	D-2
Q405	C-6	D302	F-9	D507	G-5
Q407	C-7	D303	F-7	D508	G-5
Q409	D-7	D304	G-7	D509	G-5
Q417	C-6	D307	G-8	D510	F-5
Q418	B-5	D309	G-8	D512	D-2
Q419	C-6	D310	G-8	D513	E-5
Q420	C-6	D311	G-9	D514	E-4
Q421	B-5	D315	E-8	D515	F-1
Q422	B-5	D317	D-9	D516	F-5
Q423	C-5	D320	D-9	D517	D-4
Q424	C-5	D322	D-9	D518	E-5
Q428	D-6	D323	C-9	D519	C-4
Q431	B-5	D324	E-9	D522	A-4
Q434	C-5	D325	D-8	D523	A-2
Q439	C-6	D326	E-9	D524	C-2
Q443	C-5	D333	D-8	D525	C-2
Q444	B-5	D337	E-8	D526	B-4
Q500	F-2	D344	D-8	D527	B-3
Q501	D-2	D345	E-7	D528	A-1
Q502	D-3	D346	E-7	D529	A-2
Q503	B-3	D353	D-8	D530	A-1
Q505	E-5	D354	B-7	D531	A-4
Q506	B-4	D355	C-7	D532	A-4
Q507	E-5	D363	E-8	D533	G-1
Q508	C-4	D364	E-8	D534	B-4
Q509	G-5	D401	B-7	D536	A-5
Q511	F-2	D404	D-6	VARIABLE RESISTOR	
Q512	A-1	D405	B-5		
Q513	A-1	D407	D-7		
Q514	B-4				
Q515	B-2			RV501	B-2



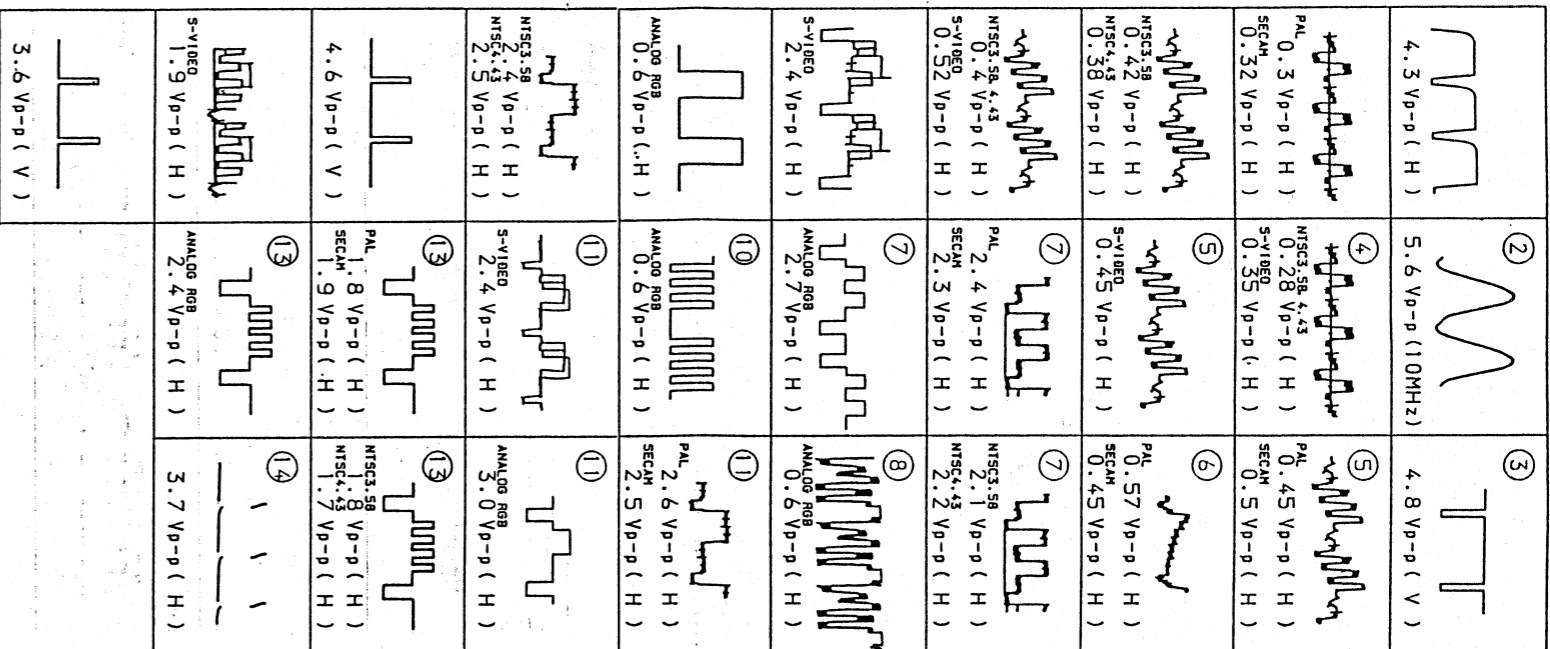




MICON, RGB-MATRIX,  
DAC, ON SCREEN DISPLAY,  
ON/OFF-MUTE, VOL OFF SW  
BLACK-SAMPLING, RGB SW



• A BOARD WAVEFORMS



A BOARD \* MARK

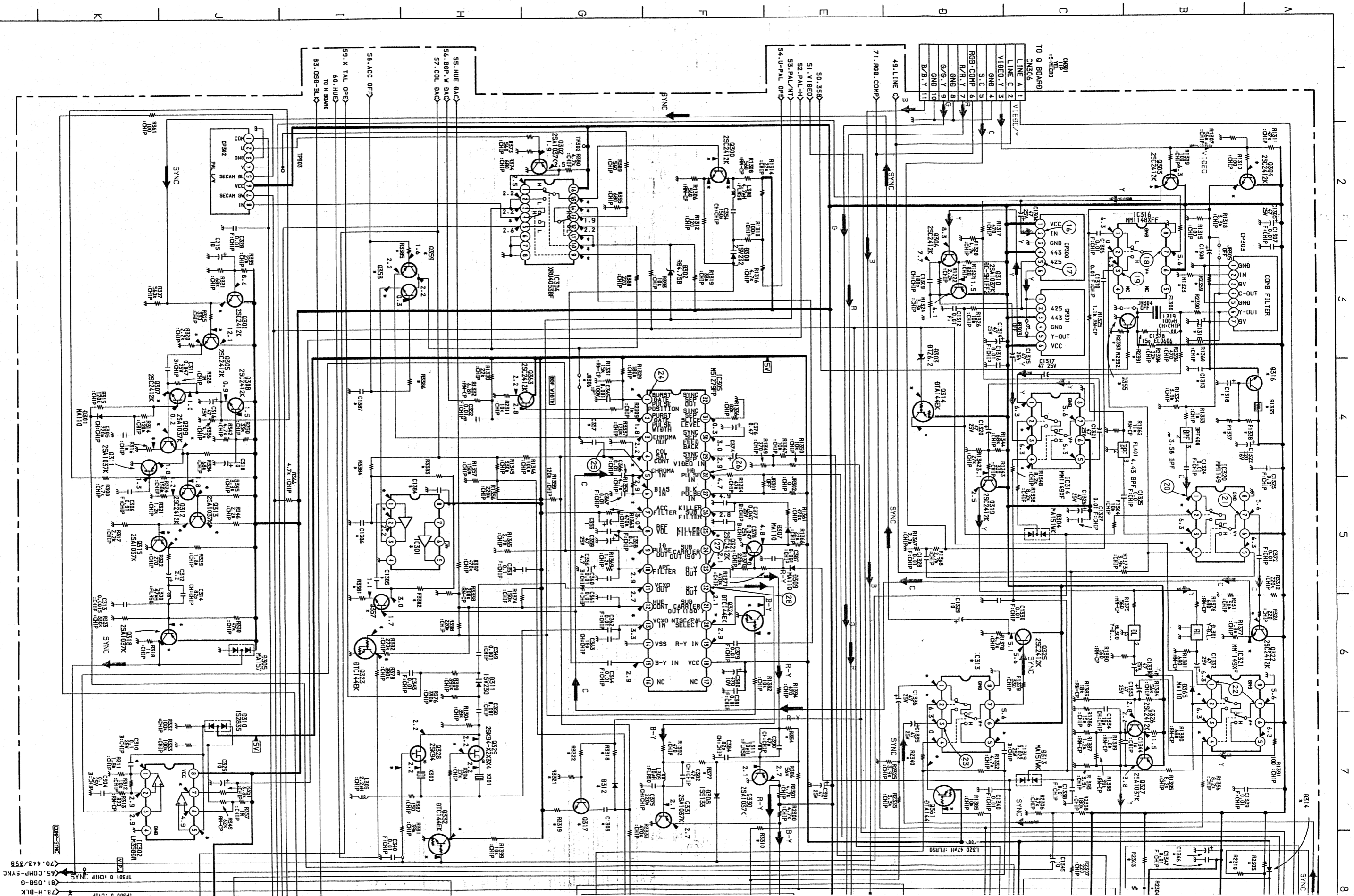
PAL	SECAM	NTSC 3.58	NTSC 4.43	SVIDEO	ANALOG RGB
IC301 ①	2.8	0	2.8	3.0	2.9
②	2.0	0	1.8	1.7	3.5
IC302 ②	2.9	2.9	0.3	2.9	2.9
③	5.3	5.1	4.5	4.5	4.5
④	10.5	8.4	0	0	0
IC303 ③	2.3	2.6	2.2	2.2	2.6
①	4.2	0.1	0.6	0.6	0.1
②	3.9	2.8	3.1	3.1	3.3
IC304 ④	2.2	2.6	2.2	2.2	2.2
⑤	9.4	0.1	9.4	9.4	9.4
⑥	7.3	7.3	2.5	2.5	2.6
⑦	1.9	1.9	2.2	2.2	2.2
⑧	2.5	2.5	2.2	2.2	2.2
IC305 ⑤	2.8	2.8	0	2.8	2.8
⑥	2.5	1.1	2.5	2.4	1.3
⑦	4.1	4.1	4.1	4.2	4.5
⑧	0.4	0.2	0	0	0.1
⑨	2.6	2.6	2.5	2.4	2.5
⑩	0	0	0.8	0.9	0.9
IC306 ⑥	2.1	2.7	1.9	1.9	2.7
①	8.1	8.1	8.1	8.1	0
②	0	0	0.1	0.1	4.4
IC308 ⑦	3.6	0	3.6	3.6	3.6
③	0	0	0	0	4.4
IC310 ⑧	6.2	6.2	6.2	6.2	5.9
⑤	5.3	5.3	6.2	6.2	5.9
⑥	5.9	5.9	6.0	6.3	5.9
IC311 ⑨	0	6.2	6.2	6.2	6.2
①	6.2	6.2	6.2	6.2	5.9
②	6.2	6.3	6.3	6.2	6.2
③	3.3	3.3	2.9	2.9	2.9
④	5.9	5.9	6.2	5.8	5.9
⑤	0.4	0.4	0.4	0.5	0.7
IC312 ⑩	3.6	0	3.6	3.6	3.6
⑥	0	0	1.20	0.1	4.5
IC313 ⑪	0	6.3	0	6.3	6.3
⑦	0	3.0	0	3.0	0
IC314 ⑫	0	7.6	0	0	0
⑧	0	0	0	2.9	0.1
IC315 ⑬	0.4	0.4	0.4	0.4	0.6
⑨	0.6	0	0.6	0.6	0.6
⑩	9.4	9.3	9.2	9.3	9.4
⑪	2.5	2.5	2.5	2.5	7.2
⑫	0.4	0.4	0.4	0.4	0.6
⑬	0.4	0.4	0.4	0.4	0.6
IC317 ⑭	2.0	0	2.0	2.0	1.20
①	1.0	0	1.20	1.20	1.0
②	1.0	0.9	0.9	1.05	1.0
③	1.1	1.1	1.1	1.1	1.1
④	1.1	1.1	1.1	1.1	1.1
⑤	1.1	1.1	1.1	1.1	1.1
⑥	1.1	1.1	1.1	1.1	1.1
⑦	1.1	1.1	1.1	1.1	1.1
⑧	1.1	1.1	1.1	1.1	1.1
⑨	1.1	1.1	1.1	1.1	1.1
⑩	1.1	1.1	1.1	1.1	1.1
⑪	1.1	1.1	1.1	1.1	1.1
⑫	1.1	1.1	1.1	1.1	1.1
⑬	1.1	1.1	1.1	1.1	1.1
⑭	1.1	1.1	1.1	1.1	1.1
⑮	1.1	1.1	1.1	1.1	1.1
⑯	1.1	1.1	1.1	1.1	1.1
⑰	1.1	1.1	1.1	1.1	1.1
⑱	1.1	1.1	1.1	1.1	1.1
⑲	1.1	1.1	1.1	1.1	1.1
⑳	1.1	1.1	1.1	1.1	1.1
㉑	1.1	1.1	1.1	1.1	1.1
㉒	1.1	1.1	1.1	1.1	1.1
㉓	1.1	1.1	1.1	1.1	1.1
㉔	1.1	1.1	1.1	1.1	1.1
㉕	1.1	1.1	1.1	1.1	1.1
㉖	1.1	1.1	1.1	1.1	1.1
㉗	1.1	1.1	1.1	1.1	1.1
㉘	1.1	1.1	1.1	1.1	1.1
㉙	1.1	1.1	1.1	1.1	1.1
㉚	1.1	1.1	1.1	1.1	1.1
㉛	1.1	1.1	1.1	1.1	1.1
㉜	1.1	1.1	1.1	1.1	1.1
㉝	1.1	1.1	1.1	1.1	1.1
㉞	1.1	1.1	1.1	1.1	1.1
㉟	1.1	1.1	1.1	1.1	1.1
㊱	1.1	1.1	1.1	1.1	1.1
㊲	1.1	1.1	1.1	1.1	1.1
㊳	1.1	1.1	1.1	1.1	1.1
㊴	1.1	1.1	1.1	1.1	1.1
㊵	1.1	1.1	1.1	1.1	1.1
㊶	1.1	1.1	1.1	1.1	1.1
㊷	1.1	1.1	1.1	1.1	1.1
㊸	1.1	1.1	1.1	1.1	1.1
㊹	1.1	1.1	1.1	1.1	1.1
㊺	1.1	1.1	1.1	1.1	1.1
㊻	1.1	1.1	1.1	1.1	1.1
㊼	1.1	1.1	1.1	1.1	1.1
㊽	1.1	1.1	1.1	1.1	1.1
㊾	1.1	1.1	1.1	1.1	1.1
㊿	1.1	1.1	1.1	1.1	1.1

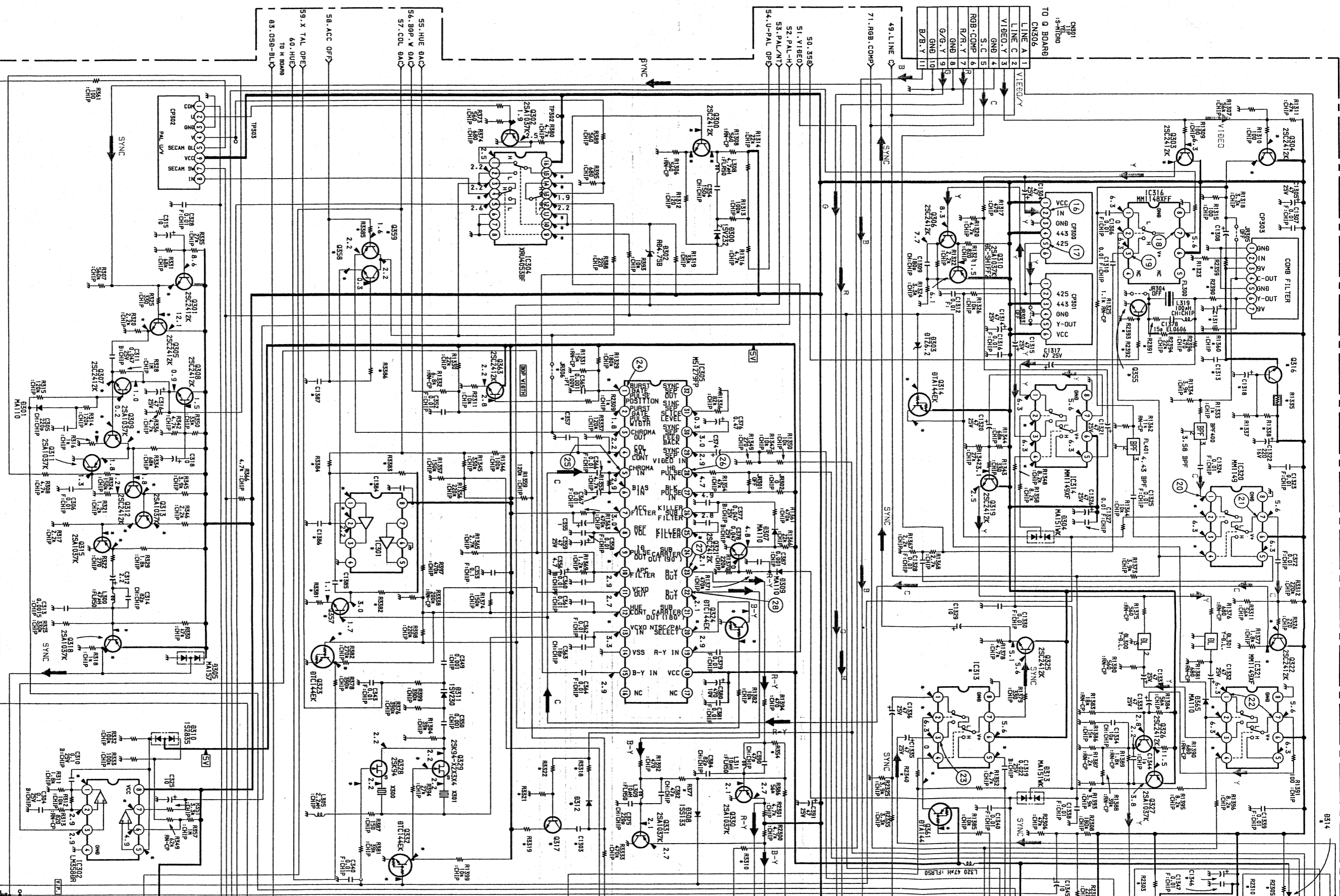
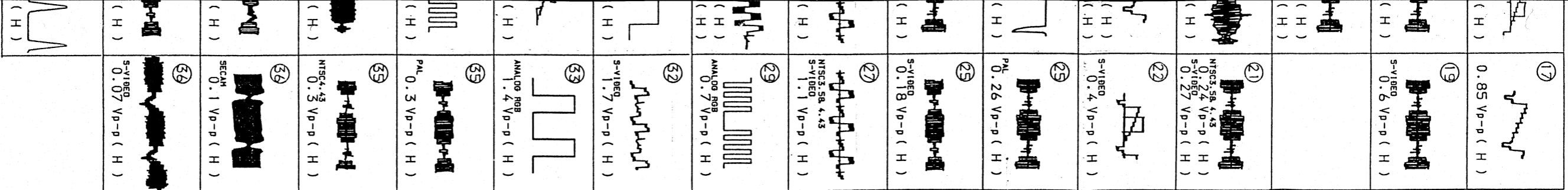
IC326 ④	6.2	6.2	6.2	6.2	6.2
⑤	6.2	6.2	6.2	6.2	6.2
⑥	6.2	6.2	6.2	6.2	6.2
IC350 ①	6.5	6.5	6.5	6.4	6.3
②	6.2	6.2	6.2	6.3	6.0
③	6.2	6.2	6.2	6.3	6.0
Q300 B	2.5	2.5	2.2	2.2	2.2
C	10.2	10.2	10.4	10.5	10.4
E	1.9	1.9	1.6	1.6	1.6
Q301 E	8.6	8.5	8.2	8.3	8.5
Q303 E	5.7	5.7	5.7	5.7	5.7
Q304 B	6.3	6.3	6.3	6.4	6.2
E	5.7	5.7	5.7	5.7	5.7
Q305 B	8.6	8.5	8.2	8.3	8.5
Q307 E	7.9	7.9	7.6	7.7	7.9
Q309 B	1.4	1.4	1.1	1.2	1.4
C	0.1	0.1	0.2	0.1	0.1
E	0.7	1.8	1.7	1.8	0
Q312 C	8.2	8.2	8.6	8.3	8.3
IC313 B	8.2	8.2	8.6	8.3	8.2
E	8.8	8.8	9.3	9.0	8.9
IC314 B	11.9	6.4	11.9	11.9	11.9
C	0	11.9	0	0	0
Q315 B	3.3	3.2	2.9	3.1	3.2
E	3.9	3.6	3.5	3.8	4.0
Q318 B	12.1	12.0	11.7	11.9	12.1
C	1.0	1.0	1.2	1.0	1.0
Q322 B	2.4	2.4	2.3	2.3	5.6
E	1.8	1.8	1.8	1.8	1.8
Q323 B	5.0	5.0	0	0	0
C	0	0	3.5	3.5	3.6
Q324 B	4.1	4.2	0	0	0
C	0	0	0.8	0.8	0.9
Q328 B	2.2	2.2	2.2	2.2	2.0
C	2.8	2.8	2.8	2.8	0
Q329 D	2.1	2.1	2.2	2.4	0
G	0	1.6	0	2.9	2.8
Q332 B	4.9	5.0	0	4.9	0
C	0	0	4.4	0	4.4
Q333 B	1.7	1.7	1.9	1.8	1.7
E	1.5	1.5	1.7	1.5	1.4
Q336 G	4.7	4.6	4.6	4.7	4.8
D	4.3	4.3	4.3	4.5	4.3
Q339 B	12.3	12.5	12.4	12.5	12.3
Q341 B	0.1	4.2	0.1	0.1	0.6
C	9.4	0.1	8.4	9.4	9.4
Q348 B	2.8	2.7	2.7	2.7	2.8
E	3.4	3.3	3.4	3.4	3.4
Q354 B	12.0	0.6	0	0	0
E	12.0	2.2	0	2.2	2.2
Q356 E	6.2	6.2	6.2	6.3	6.1
Q360 I	6.2	6.2	6.2	6.3	6.0
5	1.3	4.7	2.2	4.1	5.3
Q361 B	4.9	4.9	5.0	5.0	0.8
C	0.1	0	0	0.1	4.9
Q362 C	9.0	9.0	9.0	9.5	9.2
Q364 C	3.3	3.3	2.9	2.8	2.9
Q365 B	0.4	0	0.3	0.4	0.4
Q369 B	0.8	0.9	0.8	0.9	4.9
Q372 B	11.7	11.8	11.8	11.7	0
C	10.4	10.3	10.1	10.3	10.7
Q374 B	0	0	0	0	6.2
C	0	0	0	0	6.7
E	6.4	6.4	6.3	6.1	6.7
Q375 B	10.7	10.8	10.7	10.7	5.9
C	0	0	0	0	6.3
E	6.2	6.2	6.2	6.0	6.4

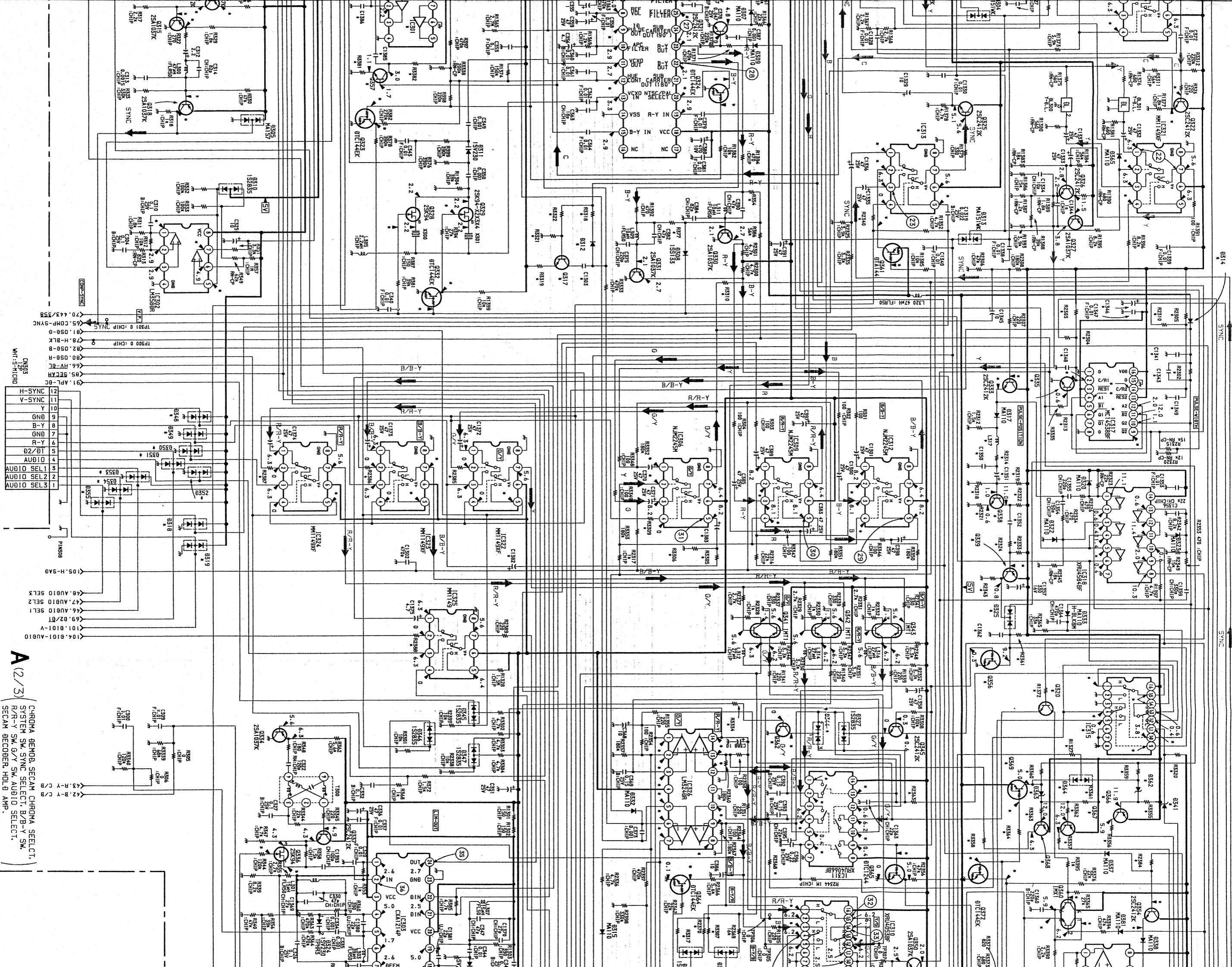
Ref	LOCATION	PWM1-1450QM	PWM1-1454QM	Ref	LOCATION	PWM1-1450QM	PWM1-1454QM
R1325	C-3	-	1.1K	C357	G-4	-	0.01
R1327	B-12	-	10K	C1303	G-7	0.1/25V	-
R1335	A-4	-	47	C1308	A-2	-	10
R1337	A-4	-	3.3K	C1311	B-3	-	47/25V
R1338	A-4	-	680	C1313	B-4	-	0.01
R1380	B-3	-	4.7K	C1318	A-4	-	47/25V
R1388	A-8	0	-	C1341	A-8	-	0.001
R2302	A-8	-	-	C1343	A-8	-	68P
R2303	B-8	-	68K	C1346	B-8	-	47/25V
R2304	B-8	-	220K	C1348	B-8	-	270P
R2305	A-8	-	33K	C1350	C-8	-	0.01
R2310	A-8	-	82K	C1351	C-9	-	1
R2313	B-9	-	1K	C1352	C-10	-	0.015
R2314	C-8	-	500	C1362	C-11	-	82P
R2316	C-10	-	68K	C1364	B-11	-	470P
R2318	C-10	-	68K	C1362	G-10	-	100/10V
R2321	C-10	-	2.2K	C1363	F-10	-	47/25V
R2322	C-10	-	4.7K	C1364	H-4	-	0.1/25V
R2324	C-10	-	10K	C1365	I-5	-	0.01
R2333	C-10	-	47K	C1366	I-5	-	0.01
R2340	D-7	-	10K	C1387	I-4	-	0.01
R2343	C-11	-	8.2K	CH303	L-9	-	12P
R2359	B-3	-	100K	DS12	G-7	MA110-TX	-
R2361	C-11	-	120K	DS14	A-8	-	MA100-TX
R2363	D-12	-	4.7K	DS16	J-10	-	MA157-TX
R2365	B-11	-	33K	DS19	J-10	-	MA157-TX
R2368	E-13	-	4.7K	DS25	C-11	-	MA151WK
R2385	H-9	-	10K	DS33	B-11	-	MA110-TX
R2386	H-9	-	10K	DS41	A-12	-	DTZ3.6A
R2387	J-9	-	10K	DS44	E-12	-	MA151WK
R2388	H-11	-	10K	DS48	J-9	-	MA157-TX
R2390	B-3	-	680	DS49	J-9	-	MA157-TX
R2391	B-3	-	680	DS50	J-9	-	MA157-TX
R2392	B-3	-	10K	DS51	K-9	-	MA157-TX
R2393	B-3	-	10K	DS52	J-9	-	MA157-TX
R2500	B-2	680	-	DS53	K-9	-	MA157-TX
R3305	E-10	-	3.3K	DS54	K-9	-	MA157-TX
R3306	F-10	-	3.3K	DS55	K-9	-	MA157-TX
R3308	F-10	-	10K	DS62	B-12	-	RD10S81-T1
R3310	E-8	-	1K	DS63	B-12	-	RD10S81-T1
R3315	C-12	-	4.7K	DS64	B-12	-	1S2835-T1
R3316	C-12	-	4.7K	IC301	H-5	-	BA7655A-E2
R3318	G-7	4.7K	-	IC313	C-12	MM1148XFF	MM1148XFF
R3318	G-7	120	-	IC315	B-6	-	XRL04053BF-E2
R3320	A-12	-	33K	IC317	B-9	-	MC1458F-T2
R3321	G-7	12K	-	JF304	B-3	0	-
R3322	G-7	10K	-	JF305	B-2	0	-
R3334	E-12	-	10K	JF306	G-4	0	-
R3335	B-9	-	470K	L317	C-9	-	-
R3355	A-12	-	47K	Q316	A-4	-	18MMH
R3356	B-13	-	1.2K	Q317	G-7	2SC2417K	2SC2412K
R3357	B-13	-	1.2K	Q335	B-8	-	2SC2412K
R3358	B-13	-	1.2K	Q338	C-10	-	2SA1037K
R3359	A-12	-	22K	Q339	C-10	-	2SA1037K
R3360	B-12	-	10K	Q335	B-3	-	2SC2412K
R3361	B-12	-	1K	Q356	C-11	-	DTC144EK
R3363	B-13	-	1K	Q357	I-6	-	2SC2412K
R3364	C-11	-	1K	Q358	H-3	-	2SC2412K
R3381	I-6	-	10	Q359	H-3	-	2SA1037K
R3382	H-6	-	470	Q362	E-12	-	2SC2412K
R3383	H-4	-	820	Q366	B-13	-	2SA1037K
R3384	I-4	-	6.8K	Q367	B-13	-	2SA1037K
R3385	H-2	-	3.3K	Q368	B-13	-	2SA1037K
R3386	H-3	-	2.2K	Q369	B-12	-	DTC144EK
			2.2K				

O:TO BE MOUNT  
-:NOT MOUNT

17	0.85 Vp-p (H)	
19	S-VBERD 0.6 Vp-p (H)	
21	NTSC 525L 4.43 S-VBERD Vp-p (H) 0.27 Vp-p (H)	
22	S-VBERD 0.4 Vp-p (H)	
25	PAL 0.26 Vp-p (H)	
25	S-VBERD 0.18 Vp-p (H)	
27	NTSC 525L 4.43 S-VBERD 1.1 Vp-p (H)	
29	ANALOG RGB 0.7 Vp-p (H)	
32	S-VBERD 1.7 Vp-p (H)	
33	ANALOG RGB 1.4 Vp-p (H)	
35	PAL 0.3 Vp-p (H)	
35	NTSC 4.43 0.3 Vp-p (H)	
36	SECAM 0.1 Vp-p (H)	
36	S-VBERD 0.07 Vp-p (H)	

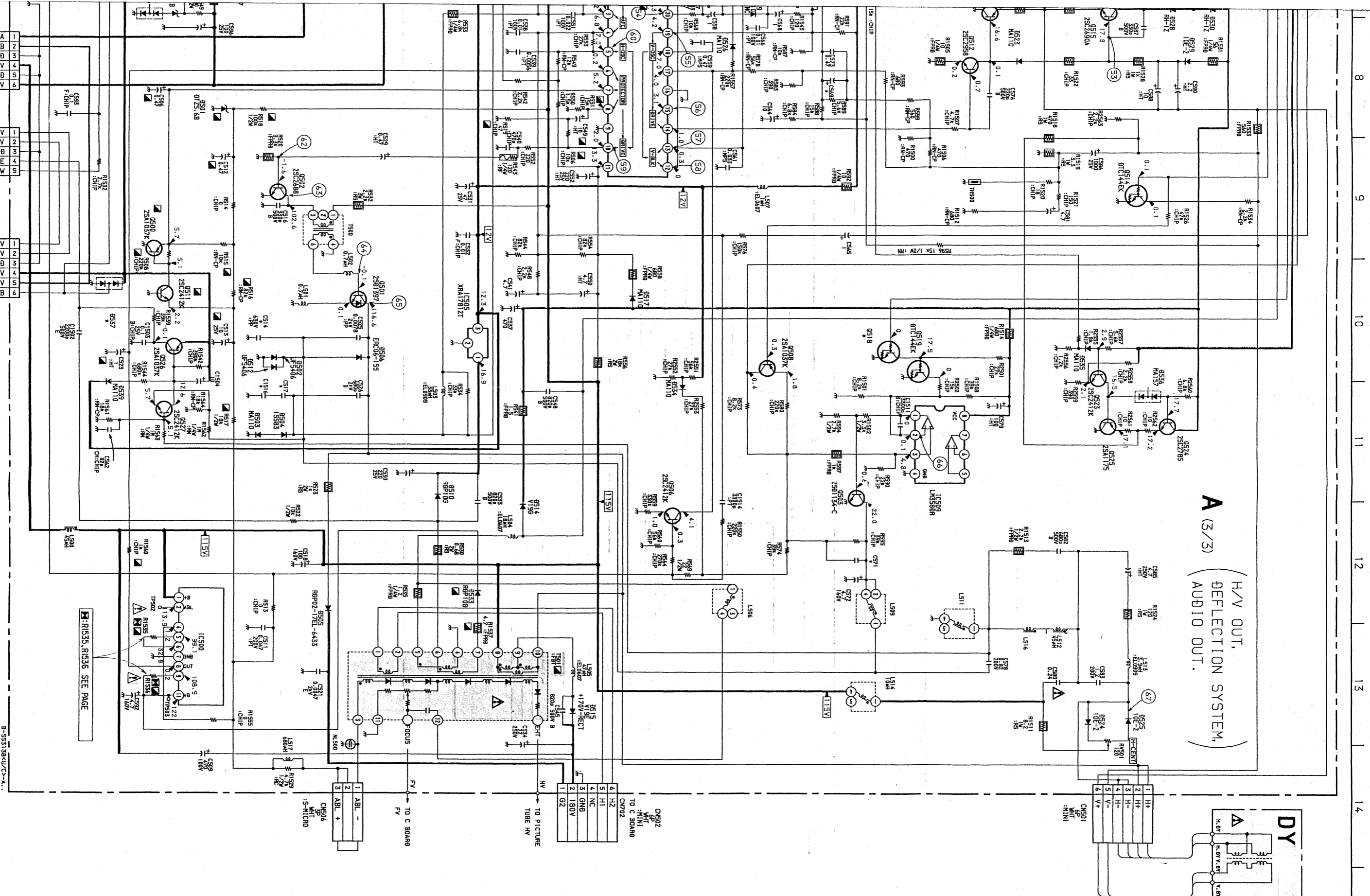

















• A BOARD W


39  0.7 Vp-p (


42  10.0 Vp-p (


45  3.9 Vp-p (


48  5.0 Vp-p (


51  4.2 Vp-p (

54  11.0 Vp-p (

57  5.9 Vp-p (

60  3.8 Vp-p (

63  170 Vp-p (

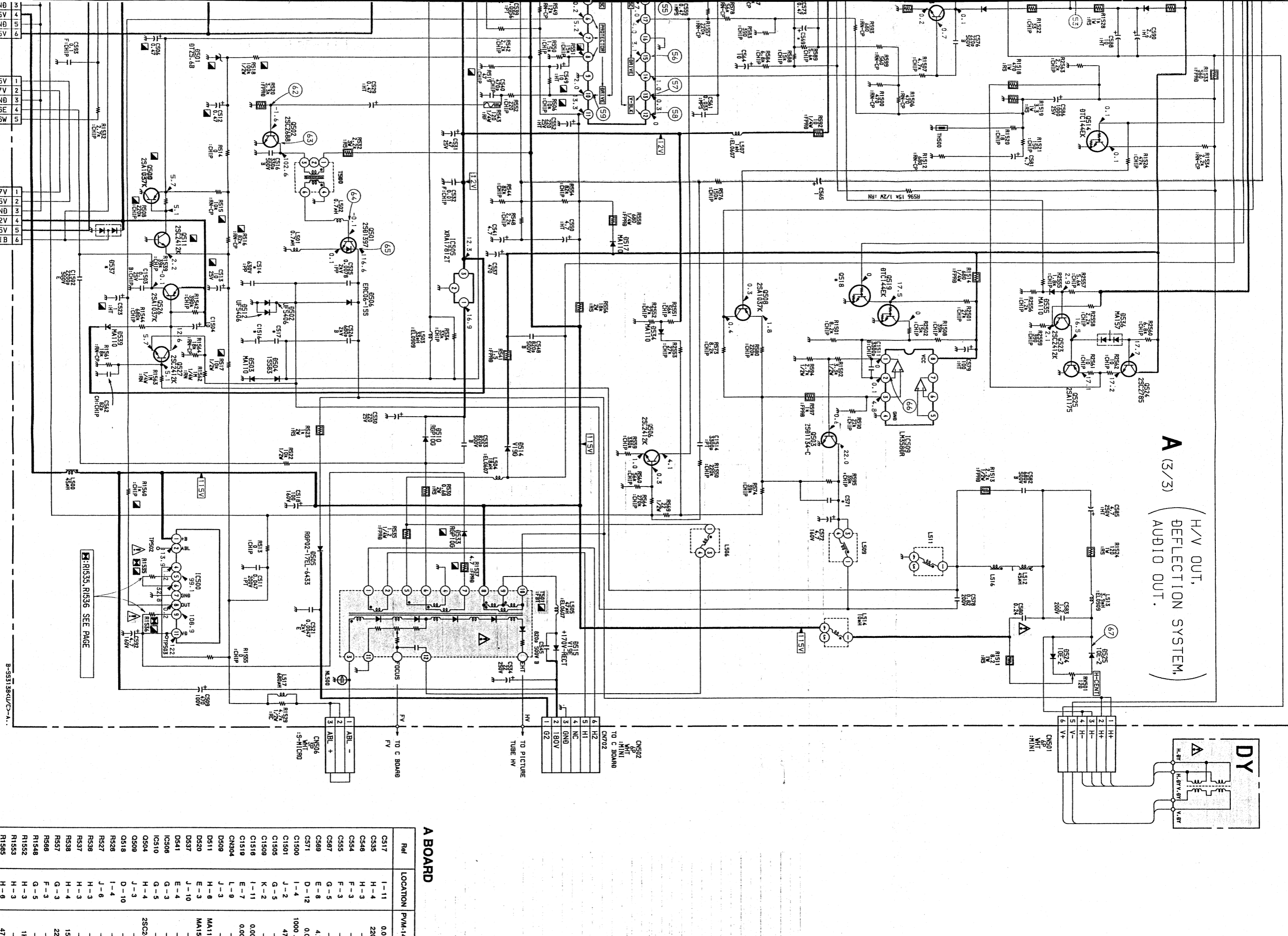
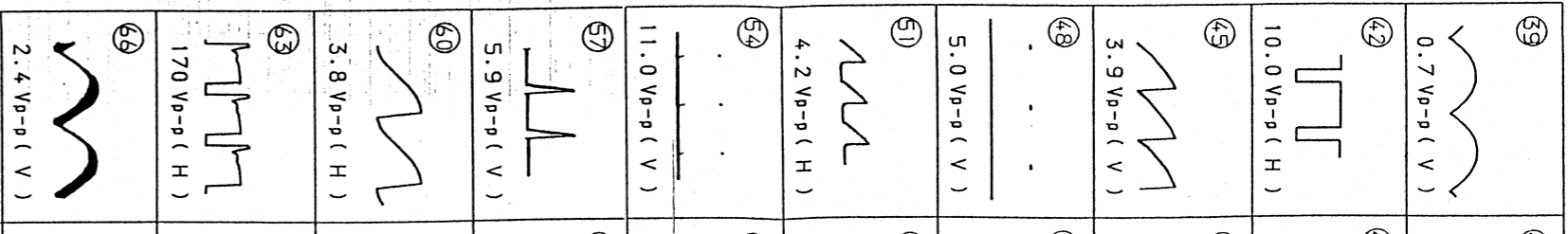
66  2.4 Vp-p (

• A BOARD M

Ref	LOCATION	PWM-14500M	PWM-14540M
CS17	I-11	0.018	0.01 / 200V
CS35	H-4	220P	-
CS46	H-3	-	120P
CS54	F-3	-	0.01
CS55	F-3	-	10
CS67	G-5	-	0.047
CS69	E-8	4.7	3.3
CS71	D-12	0.01	0.01 / 100V
CI500	I-4	1000, 10V	-
CI501	J-2	470	10
CI505	G-3	-	0.1
CI509	K-2	-	10
CI516	I-11	0.0022	-
CI519	E-7	0.0022	-
CN304	L-9	-	8P
D509	J-3	-	MA110-TX
D511	H-8	MA110-TX	-
D520	E-3	MA151WIK	-
D537	J-10	-	MA151-TX
D541	E-4	-	MA151WIK
IC506	G-3	-	MC14538BF
IC510	G-5	-	MC14538BF
OS04	H-4	25C2412K	-
OS08	J-3	-	DTA144EK
OS18	D-10	-	DTA144EK
RS26	I-4	47K	47K
RS27	J-6	47K	47K
RS36	H-3	150K	150K
RS37	H-3	47K	47K
RS38	H-4	15K	-
RS57	G-3	22K	27K
RS66	F-3	-	2.2K
RS146	G-5	-	56K
RI552	H-3	1K	56K
RI553	H-3	-	56K
RI565	H-6	47K	-
RI566	I-6	10K	-
RI568	J-2	-	22K
RI569	J-2	-	10K
RI570	E-4	-	10K
RI571	G-5	-	160K
RI572	G-5	-	150K
RI573	G-5	-	10K

## A BOARD

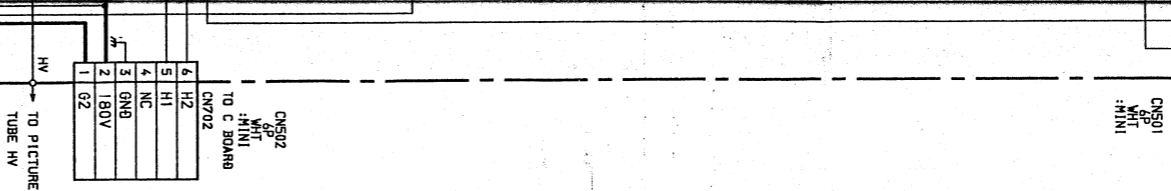
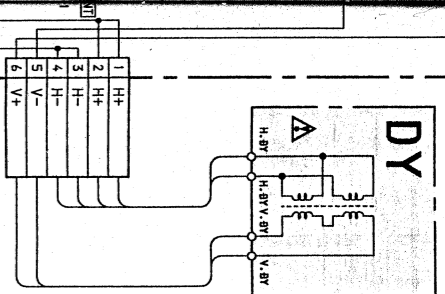
A BOARD WAVEFORMS



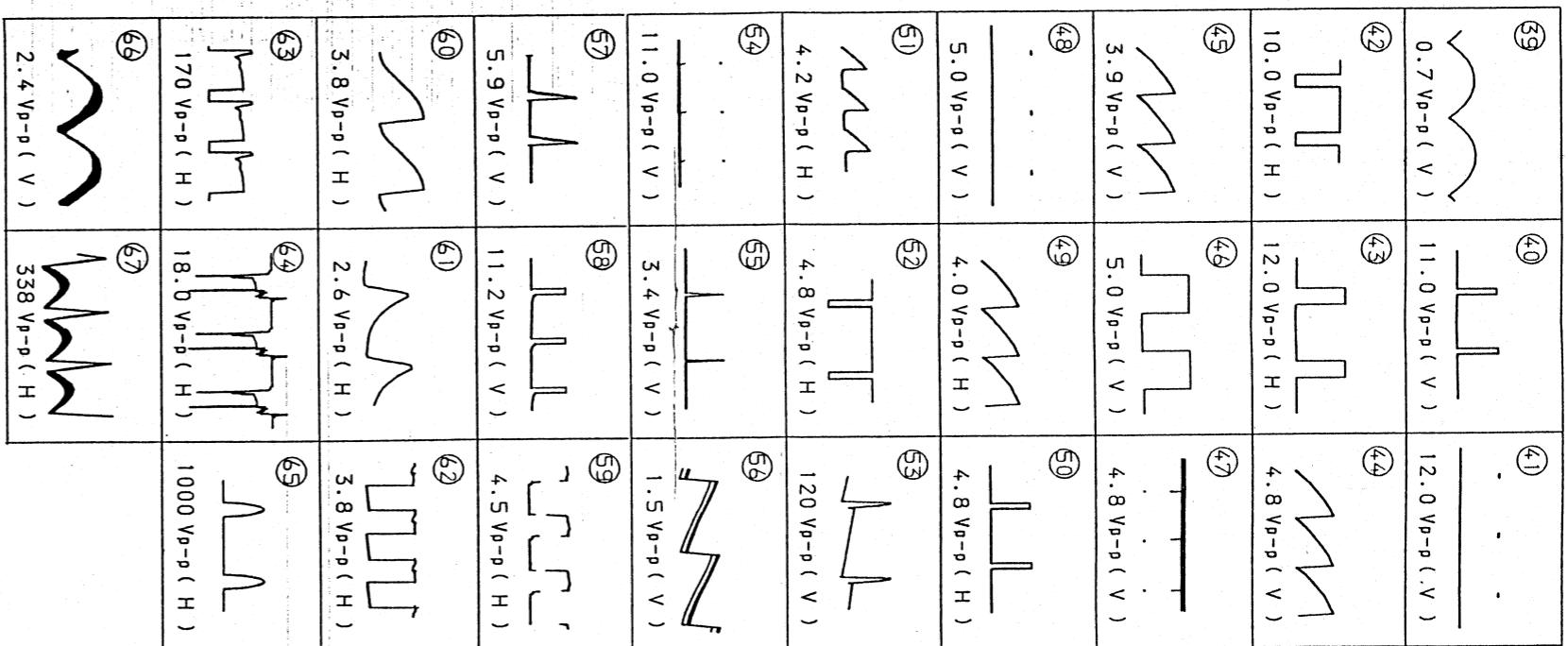
A BOARD

Ref	LOCATION	PWM-1450QM	PWM-1454QM
C517	I-11	0.018	0.01/20V
C535	H-4	220P	
C546	H-3	120P	
C544	F-3	0.01	
C555	F-3	10	
C567	G-5	0.047	
C568	E-8	4.7	
C571	D-12	0.01	0.01/100V
C1500	J-2	1000.10V	
C1501	J-4	470	
C1505	G-5	0.1	
C1509	K-2	10	
C1516	I-11	0.0022	
C1519	E-7	0.0022	
CN304	L-9		
D508	J-3		MA110-TX
D511	H-8		MA110-TX
D520	E-3		MA151WK
D537	J-10		MA157-TX
D541	E-4		MA151WK
IC508	G-3		MC14538BF-12
IC510	G-5		MC14538BF-12
OS04	H-4		25C2412K
OS18	J-3		
OS26	I-4		DTA144EK
RS27	J-6		47K
RS36	H-3		47K
RS37	H-3		150K
RS38	H-4		47K
RS57	F-3		22K
RS58	G-3		27K
RS59	G-5		2.2K
RS66	H-3		56K
RS65	H-6		47K
RS66	H-6		10K
RS68	J-2		22K
RS69	J-2		10K
RS70	E-4		10K
RS71	G-5		100K
RS72	G-5		150K
RS73	G-5		10K

O: TO BE MOUNT  
-: NOT MOUNT



• A BOARD WAVEFORMS



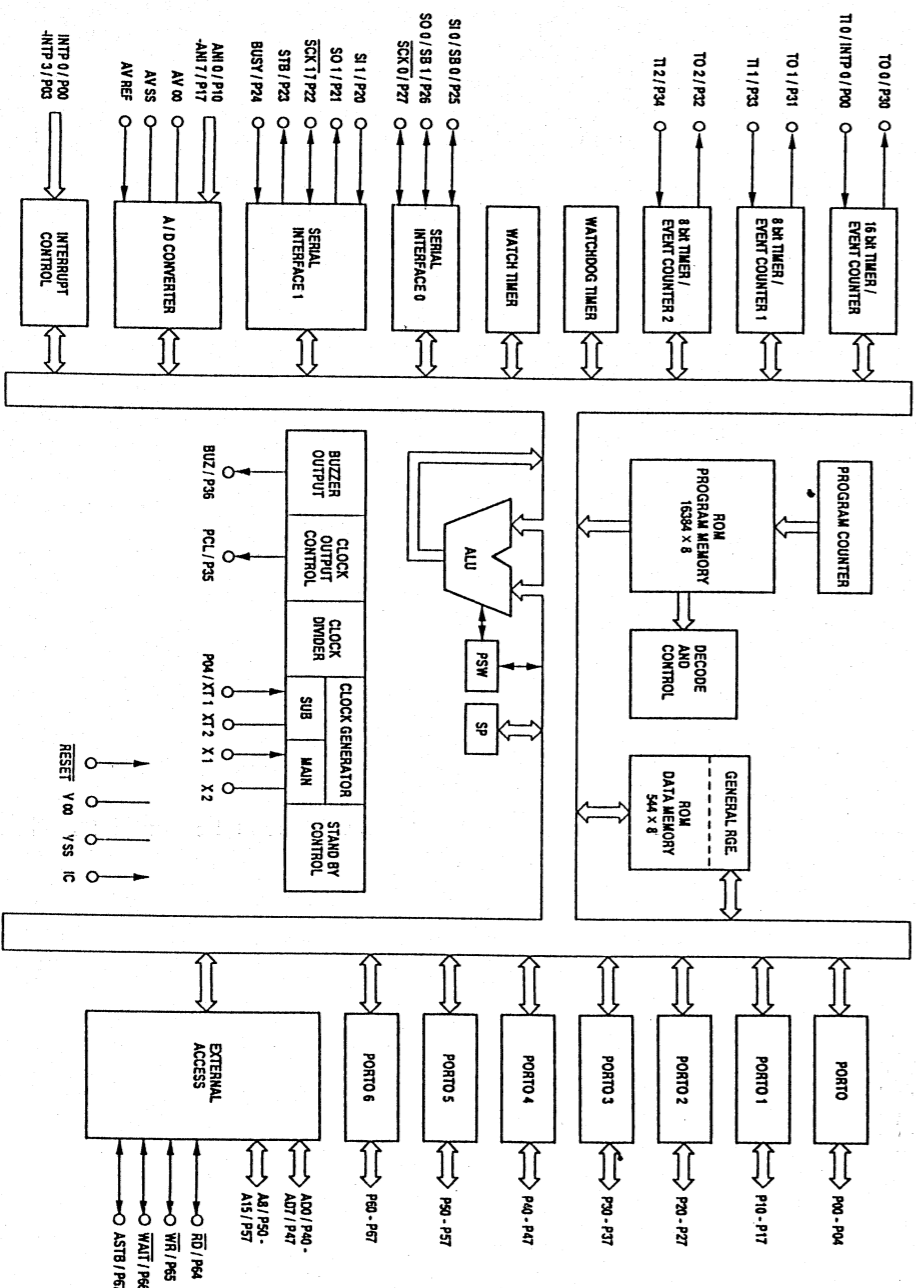
A BOARD

D101	PROTECT	D407	RGB SW	IC109	DAC 5	Q302	
D102	PROTECT	D408	BLANKING	IC110	DAC 3	Q303	
D103	OSP POSITION ADJ	D410	SW	IC111	EXP OUT-PORT	Q304	
D104	PROTECT	D411	SW	IC200	AUDIO OUT	Q305	
D105	PROTECT	D301	ACC OFF GAINCONT. AMP	IC301	ACC OFF GAINCONT. AMP	Q306	
D107	PROTECT	D414	SW	IC302	PAL 60/50	Q307	
D109	MUTE	D415	OSD MODE SW	IC303	SECAM DECOHER	Q308	
D110	MUTE SW	D416	OSD B MIX	IC304	SYSTEM SW	Q309	
D111	PROTECT	D417	OSD G MIX	IC305	CHROMA DEMOD	Q310	
D112	MUTE	D418	OSD R MIX	IC306	G/Y SW	Q311	
D113	D. C. SHIFT	D421	SW	IC309	R/R/SW	Q312	
D114	SW	D422	SW	IC310	BLACK INSERT	Q313	
D115	PROTECT	D423	CLAMP	IC311	SAMPLE	Q314	
D200	AUDIO D. C. REF	D424	PROTECT	IC312	B/Y SW	Q315	
D300	PHASE ADJ	D425	CLAMP	IC313	SYNC SELECT	Q316	
D301	SW	D426	D. C. SHIFT	IC314	Y SW	Q318	
D302	D. C. SHIFT	D427	PROTECT	IC315	PULSE SELECT	Q319	
D303	SECAM SW	D501	SECAM UP	IC316	SECAM CHROMA SELECT	Q321	
D304	SW	D502	HV. PROTECT	IC317	HPLSCGATE	Q323	
D305	PROTECT	D503	PIN DAMPER 1	IC318	NOT GATE	Q324	
D306	SW	D504	PROTECT	IC320	CHROMA BPF SELECT	Q325	
D307	B/W/SW	D505	G2 RECT	IC321	Y. D. L. SW	Q326	
D309	B/W/SW	D506	DAMP	IC322	G/Y SW SELECT	Q327	
D310	CLAMP	D507	HO DELAY SW	IC323	B/Y SW SELECT	Q328	
D311	XTAL ADJ	D508	HV DELAY SW	IC325	AUDIO SELECT	Q329	
D313	SW	D509	SW	IC326	HOLD AMP	Q330	
D314	SLICE	D510	+15V RECT	IC350	BUFFER AMP	Q331	
D315	7.5 OPSW	D512	PIN DAMPER 2	IC401	BLUE ONCK GAINCONT AMP	Q333	
D317	LEVEL SHIFT	D513	H. BLK	IC402	R/Y GAINCONT AMP	Q334	
D318	PROTECT	D514	+24V RECT	IC403	BLACK SAMPLING	Q335	
D319	PROTECT	D515	+170V RECT	IC404	RGB MATRIX	Q336	
D320	SLICE	D516	H. BLK	IC405	BL ONLY SW 1	Q337	
D322	SLICE	D517	SW	IC406	HOLD 2	Q338	
D323	SW	D518	PROTECT	IC407	HALK SW 2	Q339	
D324	R/Y COLOR BALANCE ADJ	D519	V. SYNC	IC408	EDGE DETECT	Q341	
D325	SW	D520	MCOM V SW	IC409	ON/OFF MUTE	Q342	
D326	B/Y COLOR BALANCE ADJ	D522	D. C. UP	IC410	SIG SELECT	Q343	
D327	SW	D523	BIAS	IC411	COUNTER	Q345	
D333	SW	D524	H. GENT	IC412	VOL OFF SW 4	Q346	
D335	SW	D525	H. GENT	IC413	VOL OFF SW 2	Q347	
D336	SW	D526	50 / 60 SW	IC502	VIDEO LAY MONOMULTI	Q348	
D337	SECAM SW	D527	D. C. LIMITER	IC503	HODELAY MONOMULTI	Q349	
D338	SW	D528	POM-OP2	IC504	V GAINCONT AMP 2	Q350	
D339	SW	D529	SW	IC505	1.2V REG	Q351	
D341	D. C. SHIFT	D530	POM-OP1	IC506	HALK MONOMULTI	Q352	
D344	SW	D531	12V REF 1	IC507	DIRECTION	Q353	
D345	OSD G CLAMP	D532	12V REF 2	IC508	V GAINCONT AMP 1	Q354	
D346	OSD B CLAMP	D533	PROTECT RECT	IC509	PINCOM	Q355	
D347	OSD R CLAMP	D534	SW	IC510	16:9 VBLK MONOMULTI	Q356	
D348	PROTECT	D535	BIAS	Q357		Q357	
D349	PROTECT	D536	BIAS	Q358		Q358	
D350	PROTECT	D537	PROTECT	Q359		Q359	
D351	PROTECT	D538	PROTECT	Q360		Q360	
D352	PROTECT	D539	SW	Q361		Q361	
D353	PROTECT	D540	VBLK SW 1	Q362		Q362	
D354	PROTECT	D541	VBLK SW 2	Q363		Q363	
D355	PROTECT	IC101	MCOM	Q364		Q364	
D356	PROTECT	IC102	ECROM	Q365		Q365	
D357	PROTECT	IC103	EXOR	Q366		Q366	
D358	PROTECT	IC104	ON SCREEN DISPLAY	Q367		Q367	
D359	PROTECT	IC105	DAC 1	Q368		Q368	
D360	PROTECT	IC106	DAC 2	Q369		Q369	
D361	SW	IC107	DAC 4	Q370		Q370	
D362	D. C. SHIFT	IC108	MCOM RESET	Q371		Q371	
D363	D. C. SHIFT			Q372		Q372	
D364	SW			Q373		Q373	
D365	SECAM SW			Q374		Q374	
D366	SW			Q375		Q375	
D367	SW			Q376		Q376	
D368	SW			Q377		Q377	
D369	SW			Q378		Q378	

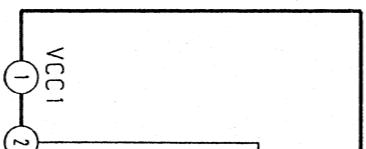
A BOARD

Ref	LOCATION	PWM-14500M	PWM-14540M
C517	1-11	0.018	0.01/200V
C535	H-4	220P	-
C546	H-3	-	120P
C554	F-3	-	0.01
C555	F-3	-	10
C567	G-5	-	0.047
C569	E-8	4.7	3.3
C571	D-12	0.01	0.01/100V
C1500	1-4	1000, 10V	-
C1501	J-2	470	10
C1505	G-5	-	0.1
C1508	K-2	-	10
C1516	I-11	0.0022	-
C1518	E-7	0.0022	-
CN304	L-9	-	6P
D509	J-3	-	MA110-TX
D511	H-6	-	-
D520	E-3	-	MA151WK
D537	J-10	-	MA151WK
D541	E-4	-	MA151WK
IC506	G-3	-	MC14538BF-T2
IC510	H-4	-	MC14538BF-T2
Q504	H-4	-	25C2412K
Q508	J-3	-	DTA144EX
Q518	D-10	-	DTA144EX
R526	1-4	-	47K
R527	J-6	-	47K
R536	H-3	-	150K
R537	H-3	-	47K
R538	H-4	-	15K
R557	F-3	-	22K
R566	G-3	-	27K
R1548	G-5	-	2.2K
R1552	H-3	-	56K
R1565	H-6	-	56K
R1568	1-6	-	47K
R1569	J-2	-	22K
R1570	E-4	-	10K
R1571	G-5	-	10K
R1572	G-5	-	180K
R1573	G-5	-	150K
		-	10K

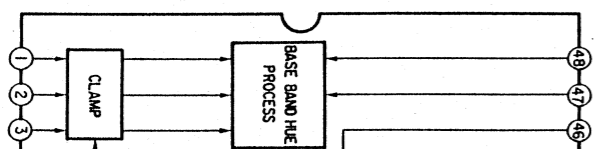
A BOARD IC101 μPD78012YCW



A BOARD IC



A BOARD IC

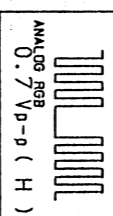
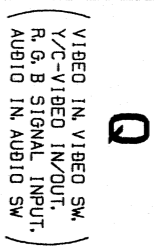


# **A BOARD**

D101	PROTECT	D407	RGB SW	IC109	DAC 5	Q302	BUFFER	Q401	BRIGHT ABL
D102	PROTECT	D408	BLANKING	IC110	DAC 3	Q303	VIDEOIN.BUFF-1	Q402	PIV ABL
D103	OSP POSITION ADJ	D410	SW	IC111	EXP-OUT-PORT	Q304	VIDEOIN.BUFF-2	Q403	VALK-SW
D104	PROTECT	D411	SW	IC200	AUDIO-OUT	Q305	CLAMP-BUFF-1	Q404	B/O G AMP 9
D105	PROTECT	D413	SW	IC301	ACC OFF GAINCONT. AMP	Q306	PAL TRAP BUFFER 1	Q405	BUFF 3
D107	PROTECT	D414	OSD MODE SW	IC302	PAL-SDI2	Q307	SYNC-CHIP-CLAMP 2	Q406	B/O G AMP 2
D109	MUTE	D415	OSD BLK-INSERT	IC303	SECAM DECODER	Q308	CLAMP RE 1	Q407	B/W-SW3
D110	MUTE SW	D416	OSD 8 MIX	IC304	SYSTEM-SW	Q309	CLAMP-BUFF-2	Q408	B/O R AMP 1
D111	PROTECT	D417	OSD G MIX	IC305	CHROMA-DEMOD	Q310	PAL TRAP BUFFER 2	Q409	B-Y-BUFF
D112	MUTE	D418	OSD R MIX	IC306	G-Y-SW	Q311	SLICER 2	Q410	Y BUFFER
D113	D.C. SHIFT	D421	SW	IC309	R/R-SW	Q312	AMP 1	Q411	B/O R AMP 2
D114	SW	D422	SW	IC310	BLACK-INSERT	Q313	AMP 2	Q412	BOH BOFFER
D115	PROTECT	D423	CLAMP	IC311	SAMPLE	Q314	SECAM SW	Q413	BOH NORMAL SW
D200	AUDIO D.C. REF	D424	PROTECT	IC312	B-Y-SW	Q315	BUFF	Q414	R BUFFER
D300	PHASE ADJ	D425	CLAMP	IC313	SYNC SELECT	Q316	NT-COMB-D.C. REF	Q415	G BUFFER
D301	SW	D426	D.C. SHIFT	IC314	Y-SW	Q318	NOT GATE	Q416	B BUFFER
D302	D.C. SHIFT	D427	PULSE SELECT	IC315	PULSE SELECT	Q319	Y-SW-BUFF	Q417	B-BUFF
D303	SECAM SW	D500	SPEED UP	IC316	SECAM CHROMA SELECT	Q321	B-W-SW 2	Q418	OFF-MUTE-SW
D304	SW	D501	HV. PROTECT	IC317	HPL-SCGATE	Q322	PAL SW	Q419	G-BUFF 3
D305	PROTECT	D502	PIN DAMPER 1	IC318	NOT GATE	Q324	PAL SW	Q420	R BUFF 3
D306	SW	D503	PROTECT	IC320	CHROMA BPF SELECT	Q325	SYNC-SIG-BUFF	Q421	VALK-SW 1
D307	B-W-SW	D504	PROTECT	IC321	Y. D. L. SW	Q326	Y-AMP-1	Q422	BLANKING
D309	B-W-SW	D505	G2 RECT	IC322	G-Y SW SELECT	Q327	Y-AMP-2	Q423	BLUE BUFFER
D310	CLAMP	D506	DAMPER	IC323	B-Y SW SELECT	Q328	443 SW	Q424	BLK
D311	XTAL ADJ	D507	HD-DELAY SW	IC324	R/R-Y SW SELECT	Q329	368 SW	Q425	V-P BUFFER 1
D313	SW	D508	HY-DELAY SW	IC325I	AUDIO SELECT	Q330	R-Y-BUFF 1	Q426	V-P BUFFER 2
D315	SLICE	D509	SW	IC326	HOLD AMP	Q331	B-Y-BUFF 1	Q428	SWAPRESS BUFFER
D316	7.5 OSWSW	D510	+5V-RECT	IC350	BUFFER AMP	Q332	368 SW	Q429	IK BUFFER
D317	LEVEL-SHIFT	D512	PIN-DAMPER 2	IC401	BLUE-ONCK GAINCONT AMP	Q333	SYNC-BUFF	Q430	IK BLK
D318	PROTECT	D513	H. BLK	IC402	R-Y GAINCONT AMP	Q334	BELL-FIL BUFFER	Q431	RESET MUTE SW
D319	PROTECT	D514	+24V-RECT	IC403	H. BLK	Q335	HYDOLAY SW	Q432	BRIGHT MUTE SW
D320	SLICE	D515	+170V-RECT	IC404	RGB-SAMPLING	Q336	ID SW	Q433	RGB SW
D322	SLICE	D516	H. BLK	IC405	RGB-MATRIX	Q337	BELL-FIL BUFFER	Q434	MUTE RGB SW
D323	SW	D517	SW	IC406	HOLD 2	Q338	V-SYNC SSP 1	Q442	BOH BUFFER
D324	R-Y COLOR BALANCE ADJ	D518	PROTECT	IC407	HBLK-SW 2	Q339	V-SYNC SSP 2	Q443	AUTO CHROMA SET UP AMP 1
D325	SW	D519	V. SYNC	IC408	EDGE DETECT	Q341	G-Y BUFFER	Q444	AUTO CHROMA SET UP AMP 2
D326	B-Y COLOR BALANCE ADJ	D520	MCOM V SW	IC409	ON/OFF-MUTE	Q342	R/R-Y BUFFER	Q445	BLUE ONLY SW
D327	SW	D522	D.C. UP	IC410	SIG SELECT	Q343	B-Y BUFFER	Q439	BOH B/O DLY-EO 1
D332	RGB COMP SW	D524	BLAS	IC411	COUNTER	Q345	MUTE SW	Q440	BOH B/O DLY-EO 2
D333	SW	D526	SO / 60 SW	IC412	VOL. OFF SW 4	Q346	ID SW	Q441	BOH B/O SW
D335	SW	D527	H. CENT	IC413	VOL. OFF SW 2	Q347	SECAM SW	Q442	BOH BUFFER
D336	SW	D528	D.C. LIMITTER	IC502	V-DELAY MONOMULTI	Q348	R-Y BUFFER	Q443	AUTO CHROMA SET UP AMP 1
D337	SECAM-SW	D529	PUMP-OP2	IC504	H-DELAY MONOMULTI	Q349	B-Y BUFFER	Q444	AUTO CHROMA SET UP AMP 2
D338	SW	D532	PUMP-OP1	IC505	V GAINCONT AMP 2	Q350	INSERT-PULSE-SW	Q500	CURRLIN 2
D341	D.C. SHIFT	D530	ROM-OP1	IC506	HBLK MONOMULTI	Q351	G-Y-BUFF-2	Q501	H-OUT
D344	SW	D531	12V REF 1	IC507	DIRECTION	Q352	R/R-Y-BUFF-2	Q502	H-ORVE
D345	OSD G CLAMP	D532	12V REF 2	IC508	V GAINCONT AMP 1	Q353	B-Y-BUFF-2	Q503	PIN-OUT
D346	OSD B CLAMP	D533	PROTECT RECT	IC509	PINCOM	Q354	B-W-SW2	Q505	H. BLK 1
D347	OSD R CLAMP	D534	SW	IC510	16.9 VBLK MONOMULTI	Q355	258 TRIP SW	Q506	V. ZOOMING
D348	PROTECT	D535	BLAS	Q101	VBLK BUFFER	Q357	MUTE SW	Q507	H. BLK211
D349	PROTECT	D536	BLAS	Q102	R-Y C/B BUFFER	Q358	ACC OFF AMP	Q508	SO/60 SW
D350	PROTECT	D537	PROTECT	Q103	BY C/B BUFFER	Q359	ACC ON SW	Q509	DIGITAL V SW
D351	PROTECT	D538	PROTECT	Q104	TALCY SW	Q360	HOLD	Q511	CURRLIN 1
D352	PROTECT	D539	SW	Q105	U/S SW	Q361	EXT-SYNC SW	Q512	V-ORVE
D353	PROTECT	D540	VBLK SW 1	Q106	OSD SW	Q362	OSD SW	Q513	V. OUT 1
D354	PROTECT	D541	VBLK SW 2	Q107	RGB COMP	Q363	TEST BUFFER	Q514	SO/60 SW
D355	PROTECT	IC101	MCOM	Q108	V SHORT SW	Q364	V-PULSE SW	Q515	V. OUT 2
D356	SW	IC102	ECPPROM	Q109	BLOS ONLY SW	Q365	MUTE SW	Q517	HV PHASE LOCK SW
D357	D.C. SHIFT	IC103	EXOR	Q110	MUTE BUFFER	Q366	BRIGHT UP SW 1	Q518	U/S SW 1
D358	D.C. SHIFT	IC104	ON SCREEN DISPLAY	Q111	HVDC SW	Q367	BRIGHT UP SW 2	Q519	U/S SW 2
D359	SECAM SW	IC105	DAC 1	Q112	MUTE BUFFER	Q368	BRIGHT UP SW 3	Q520	12V REG
D360	SW	IC106	DAC 2	Q113	DGC SW	Q369	RGB SW	Q522	H. P. BUFFER
D361	SW	IC107	DAC 4	Q200	12V-REG	Q372	RGB SW	Q523	V-VENT COUNT
D381	SW	IC108	MCOM RESET	Q201	MUTE SW	Q373	RGB MODE SW	Q524	V-VENT OUT 2
D401	SW 15	Q300	PHASE SHIFT	Q300	PHASE SHIFT	Q374	RGB MODE SW	Q525	V-VENT OUT 1
D404	SW	Q301	SYNC-CHIP CLAMP 1	Q301	SYNC-CHIP CLAMP 1	Q375	RGB MODE SW	Q526	FBI-12V FAILURE SW
D405	BLANKING					Q376	MUTE SW	Q527	CS28 FAILURE SW
D406	SW SLICE					Q378	DIGITAL MODE SW 2		

D101	PROTECT	D407	RGB SW	IC109	DAC 5	Q302	BUFFER	Q401	BRIGHT ABL
D102	PROTECT	D408	BLANKING	IC110	DAC 3	Q303	VIDEOIN.BUFF-1	Q402	PIV ABL
D103	OSP POSITION ADJ	D410	SW	IC111	EXP-OUT-PORT	Q304	VIDEOIN.BUFF-2	Q403	VALK-SW
D104	PROTECT	D411	SW	IC200	AUDIO-OUT	Q305	CLAMP-BUFF-1	Q404	B/O G AMP 9
D105	PROTECT	D413	SW	IC301	ACC OFF GAINCONT. AMP	Q306	PAL TRAP BUFFER 1	Q405	BUFF 3
D107	PROTECT	D414	OSD MODE SW	IC302	PAL-SDI2	Q307	SYNC-CHIP-CLAMP 2	Q406	B/O G AMP 2
D109	MUTE	D415	OSD BLK-INSERT	IC303	SECAM DECODER	Q308	CLAMP RE 1	Q407	B/W-SW3
D110	MUTE SW	D416	OSD 8 MIX	IC304	SYSTEM-SW	Q309	CLAMP-BUFF-2	Q408	B/O R AMP 1
D111	PROTECT	D417	OSD G MIX	IC305	CHROMA-DEMOD	Q310	PAL TRAP BUFFER 2	Q409	B-Y-BUFF
D112	MUTE	D418	OSD R MIX	IC306	G-Y-SW	Q311	SLICER 2	Q410	Y BUFFER
D113	D.C. SHIFT	D421	SW	IC309	R/R-SW	Q312	AMP 1	Q411	B/O R AMP 2
D114	SW	D422	SW	IC310	BLACK-INSERT	Q313	AMP 2	Q412	BOH BOFFER
D115	PROTECT	D423	CLAMP	IC311	SAMPLE	Q314	SECAM SW	Q413	BOH NORMAL SW
D200	AUDIO D.C. REF	D424	PROTECT	IC312	B-Y-SW	Q315	BUFF	Q414	R BUFFER
D300	PHASE ADJ	D425	CLAMP	IC313	SYNC SELECT	Q316	NT-COMB-D.C. REF	Q415	G BUFFER
D301	SW	D426	D.C. SHIFT	IC314	Y-SW	Q318	NOT GATE	Q416	B BUFFER
D302	D.C. SHIFT	D427	PULSE SELECT	IC315	PULSE SELECT	Q319	Y-SW-BUFF	Q417	B-BUFF
D303	SECAM SW	D500	SPEED UP	IC316	SECAM CHROMA SELECT	Q321	B-W-SW 2	Q418	OFF-MUTE-SW
D304	SW	D501	HV. PROTECT	IC317	HPL-SCGATE	Q322	PAL SW	Q419	G-BUFF 3
D305	PROTECT	D502	PIN DAMPER 1	IC318	NOT GATE	Q324	PAL SW	Q420	R BUFF 3
D306	SW	D503	PROTECT	IC320	CHROMA BPF SELECT	Q325	SYNC-SIG-BUFF	Q421	VALK-SW 1
D307	B-W-SW	D504	PROTECT	IC321	Y. D. L. SW	Q326	Y-AMP-1	Q422	BLANKING
D309	B-W-SW	D505	G2 RECT	IC322	G-Y SW SELECT	Q327	Y-AMP-2	Q423	BLUE BUFFER
D310	CLAMP	D506	DAMPER	IC323	B-Y SW SELECT	Q328	443 SW	Q424	BLK
D311	XTAL ADJ	D507	HD-DELAY SW	IC324	R/R-Y SW SELECT	Q329	368 SW	Q425	V-P BUFFER 1
D313	SW	D508	HY-DELAY SW	IC325I	AUDIO SELECT	Q330	R-Y-BUFF 1	Q426	V-P BUFFER 2
D315	SLICE	D509	SW	IC326	HOLD AMP	Q331	B-Y-BUFF 1	Q428	SWAPRESS BUFFER
D316	7.5 OSWSW	D510	+5V-RECT	IC350	BUFFER AMP	Q332	368 SW	Q429	IK BUFFER
D317	LEVEL-SHIFT	D512	PIN-DAMPER 2	IC401	BLUE-ONCK GAINCONT AMP	Q333	SYNC-BUFF	Q430	IK BLK
D318	PROTECT	D513	H. BLK	IC402	R-Y GAINCONT AMP	Q334	BELL-FIL BUFFER	Q431	RESET MUTE SW
D319	PROTECT	D514	+24V-RECT	IC403	H. BLK	Q335	HYDOLAY SW	Q432	BRIGHT MUTE SW
D320	SLICE	D515	+170V-RECT	IC404	RGB-SAMPLING	Q336	ID SW	Q433	RGB SW
D322	SLICE	D516	H. BLK	IC405	RGB-MATRIX	Q337	BELL-FIL BUFFER	Q434	MUTE RGB SW
D323	SW	D517	SW	IC406	HOLD 2	Q338	V-SYNC SSP 1	Q442	BOH BUFFER
D324	R-Y COLOR BALANCE ADJ	D518	PROTECT	IC407	HBLK-SW 2	Q339	V-SYNC SSP 2	Q443	AUTO CHROMA SET UP AMP 1
D325	SW	D519	V. SYNC	IC408	EDGE DETECT	Q341	G-Y BUFFER	Q444	AUTO CHROMA SET UP AMP 2
D326	B-Y COLOR BALANCE ADJ	D520	MCOM V SW	IC409	ON/OFF-MUTE	Q342	R/R-Y BUFFER	Q445	BLUE ONLY SW
D327	SW	D522	D.C. UP	IC410	SIG SELECT	Q343	B-Y BUFFER	Q439	BOH B/O DLY-EO 1
D332	RGB COMP SW	D524	BLAS	IC411	COUNTER	Q345	MUTE SW	Q440	BOH B/O DLY-EO 2
D333	SW	D526	SO / 60 SW	IC412	VOL. OFF SW 4	Q346	ID SW	Q441	BOH B/O SW
D335	SW	D527	H. CENT	IC413	VOL. OFF SW 2	Q347	SECAM SW	Q442	BOH BUFFER
D336	SW	D528	D.C. LIMITTER	IC502	V-DELAY MONOMULTI	Q348	R-Y BUFFER	Q443	AUTO CHROMA SET UP AMP 1
D337	SECAM-SW	D529	PUMP-OP2	IC504	H-DELAY MONOMULTI	Q349	B-Y BUFFER	Q444	AUTO CHROMA SET UP AMP 2
D338	SW	D532	PUMP-OP1	IC505	V GAINCONT AMP 2	Q350	INSERT-PULSE-SW	Q500	CURRLIN 2
D341	D.C. SHIFT	D530	ROM-OP1	IC506	HBLK MONOMULTI	Q351	G-Y-BUFF-2	Q501	H-OUT
D344	SW	D531	12V REF 1	IC507	DIRECTION	Q352	R/R-Y-BUFF-2	Q502	H-ORVE
D345	OSD G CLAMP	D532	12V REF 2	IC508	V GAINCONT AMP 1	Q353	B-Y-BUFF-2	Q503	PIN-OUT
D346	OSD B CLAMP	D533	PROTECT RECT	IC509	PINCOM	Q354	B-W-SW2	Q505	H. BLK 1
D347	OSD R CLAMP	D534	SW	IC510	16.9 VBLK MONOMULTI	Q355	258 TRIP SW	Q506	V. ZOOMING
D348	PROTECT	D535	BLAS	Q101	VBLK BUFFER	Q357	MUTE SW	Q507	H. BLK211
D349	PROTECT	D536	BLAS	Q102	R-Y C/B BUFFER	Q358	ACC OFF AMP	Q508	SO/60 SW
D350	PROTECT	D537	PROTECT	Q103	BY C/B BUFFER	Q359	ACC ON SW	Q509	DIGITAL V SW
D351	PROTECT	D538	PROTECT	Q104	TALCY SW	Q360	HOLD	Q511	CURRLIN 1
D352	PROTECT	D539	SW	Q105	U/S SW	Q361	EXT-SYNC SW	Q512	V-ORVE
D353	PROTECT	D540	VBLK SW 1	Q106	OSD SW	Q362	OSD SW	Q513	V. OUT 1
D354	PROTECT	D541	VBLK SW 2	Q107	RGB COMP	Q363	TEST BUFFER	Q514	SO/60 SW
D355	PROTECT	IC101	MCOM	Q108	V SHORT SW	Q364	V-PULSE SW	Q515	V. OUT 2
D356	SW	IC102	ECPPROM	Q109	BLOS ONLY SW	Q365	MUTE SW	Q517	HV PHASE LOCK SW
D357	D.C. SHIFT	IC103	EXOR	Q110	MUTE BUFFER	Q366	BRIGHT UP SW 1	Q518	U/S SW 1
D358	D.C. SHIFT	IC104	ON SCREEN DISPLAY	Q111	HVDC SW	Q367	BRIGHT UP SW 2	Q519	U/S SW 2
D359	SECAM SW	IC105	DAC 1	Q112	MUTE BUFFER	Q368	BRIGHT UP SW 3	Q520	12V REG
D360	SW	IC106	DAC 2	Q200	12V-REG	Q369	RGB SW	Q522	H. P. BUFFER
D361	SW	IC107	DAC 4	Q201	MUTE SW	Q372	RGB SW	Q523	V-VENT COUNT
D381	SW	Q300	PHASE SHIFT	Q300	PHASE SHIFT	Q373	RGB MODE SW	Q524	V-VENT OUT 2
D401	SW 15	Q301	SYNC-CHIP CLAMP 1	Q301	SYNC-CHIP CLAMP 1	Q374	RGB MODE SW	Q525	V-VENT OUT 1
D404	SW					Q375	RGB MODE SW	Q526	FBI-12V FAILURE SW
D405	BLANKING					Q376	MUTE SW	Q527	CS28 FAILURE SW
D406	SW SLICE					Q378	DIGITAL MODE SW 2		

D101
------



Ref	LOCATION	PVM-1450QM	PVM-1454QM
-----	----------	------------	------------

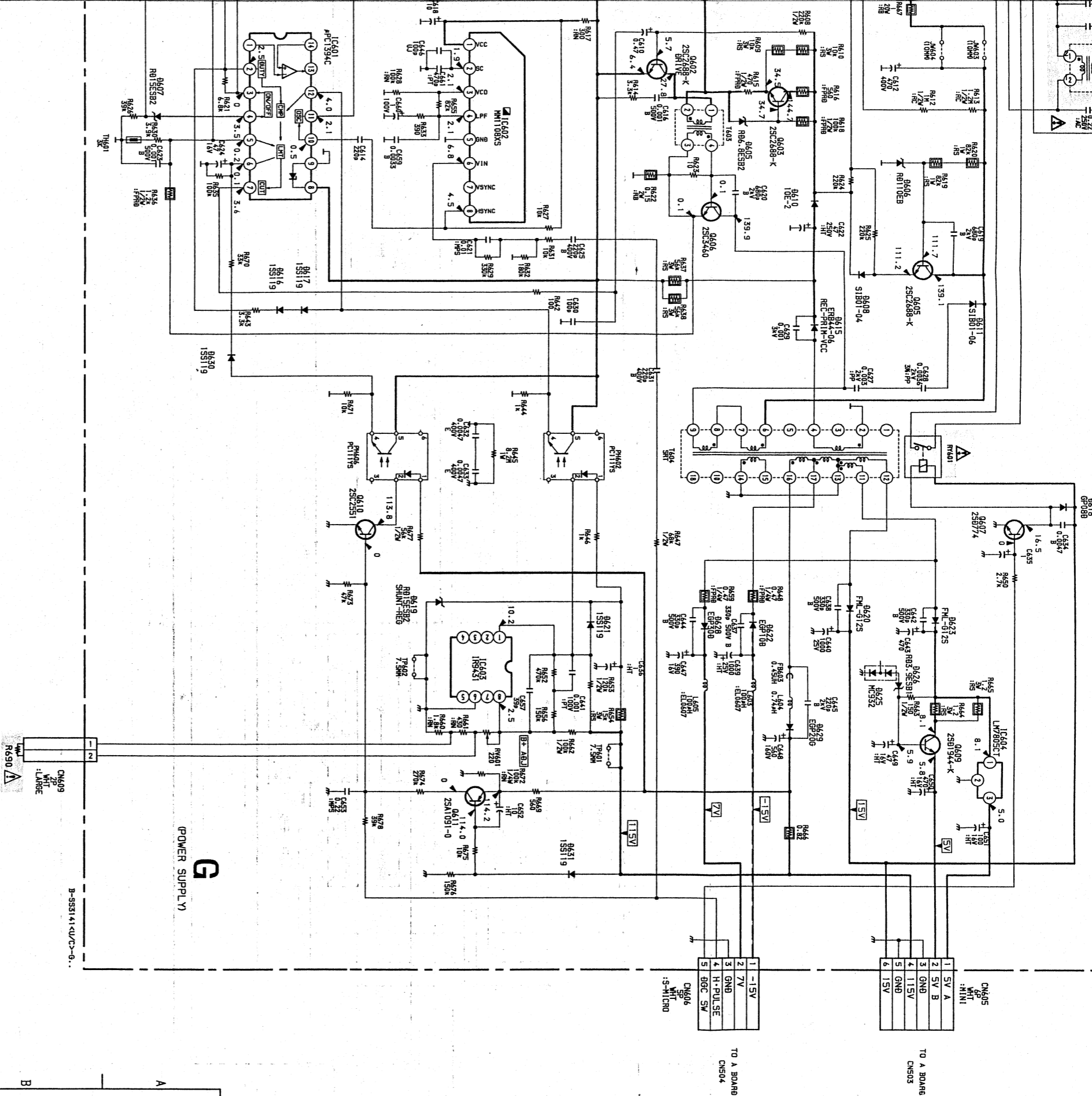
C2401	J-6	-		100P : CHIP 47 : 18V
C2405	H -6	-		
C2413	H -6	-		100P : CHIP
C2415	I -5	-		10 : 25V F : CHIP 47 : 18V
C2416	H -4	-		
C2461	J -2	-		0.1 : 25V F : CHIP
C2462	J -2	-		0.1 : 25V F : CHIP
C2463	J -2	-		0.1 : 25V F : CHIP
C2464	J -3	-		0.1 : 25V F : CHIP
C2465	J -3	-		0.1 : 25V F : CHIP
C2466	J -3	-		0.1 : 25V F : CHIP
C2467	K -3	-		0.1 : 25V F : CHIP
C2469	K -3	-		0.1 : 25V F : CHIP
C2470	K -3	-		0.1 : 25V F : CHIP
CN308	L -1	-		4P WHT.L : S-MICOR
D2402	H -6	-		MA110
D2420	K -2	-		R02T5B
D2421	K -2	-		R02T5B
D2422	K -2	-		R02T5B
D2423	K -2	-		R02T5B
IC2401	J -5	-		XRU40218F
IC2402	H -5	-		XRU40218F
J2401	A -2	-		
J2406	D -1	-		○
J2408	E -1	-		○
J2410	F -1	-		○
J2412	F -1	-		○
J2419	I -1	-		○
JR2401	D -2	-		○
JR2402	E -2	-		○
JR2403	F -2	-		○
JR2404	F -2	-		○
R2402	H -6	-		
R2404	K -3	-		
R2405	K -3	-		
R2406	J -3	-		
R2407	J -3	-		
R2408	L -3	-		
R2409	L -3	-		
R2410	J -3	-		
R2411	I -3	-		
R2412	L -3	-		
R2413	K -3	-		
R2414	J -3	-		
R2415	I -3	-		
R2416	J -3	-		
R2417	J -3	-		
R2418	K -3	-		
R2419	K -3	-		
R2420	K -3	-		
R2421	K -3	-		
R2422	J -3	-		
R2423	J -3	-		
R2424	K -3	-		
R2425	K -3	-		
R2437	I -5	-		
R2445	E -6	-		
R2452	I -5	-		
R2453	I -5	-		
R2455	G -6	-		
R2456	G -5	-		
R2461	H -4	-		
R2462	H -4	-		
R2463	H -5	-		
R2467	H -4	-		
R3428	J -3	-		
R3429	K -3	-		
R3430	K -3	-		
R3431	J -3	-		
R3432	J -3	-		
S2401	L -2	-		○

[illegible]





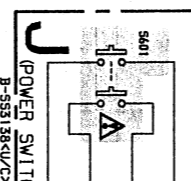
CAUTION  
AS THERE ARE TWO KINDS OF GROUND ON THIS BOARD,  
BE CAREFUL WHEN MEASURING THE VOLTAGES.



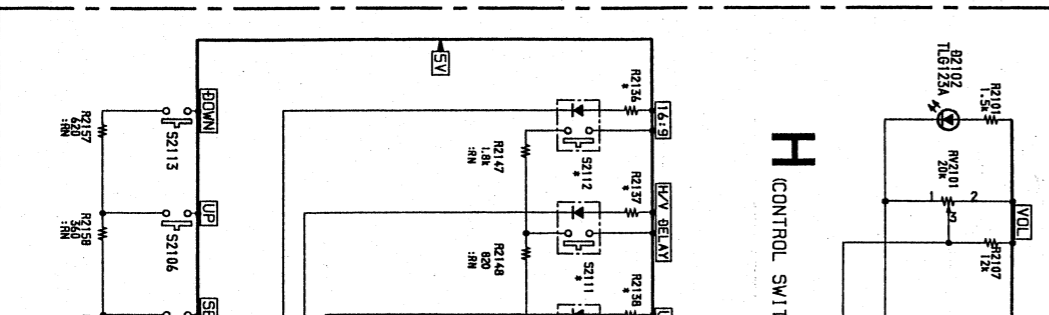
H BOARD

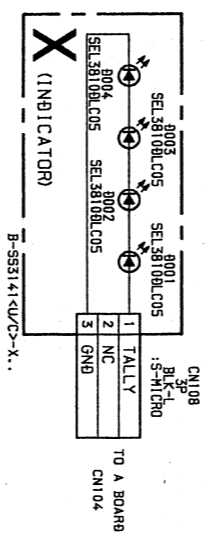
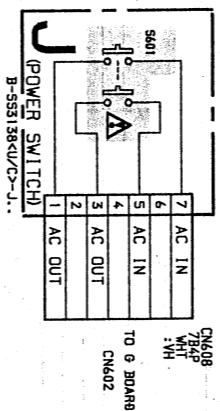
Ref	LOCATION	PWM-145QOM	PWM-145QOM
D2103	A-5	-	TLV123
R2102	A-5	-	820
R2136	B-1	-	580
R2137	B-1	-	580
R2138	B-2	-	580
R2141	B-3	-	580
S2105	C-3	-	○
S2110	C-2	-	○
S2111	C-1	-	○
S2112	C-1	-	○

O: TO BE MOUNT  
- : NOT MOUNT



H CONTROL SWITCH

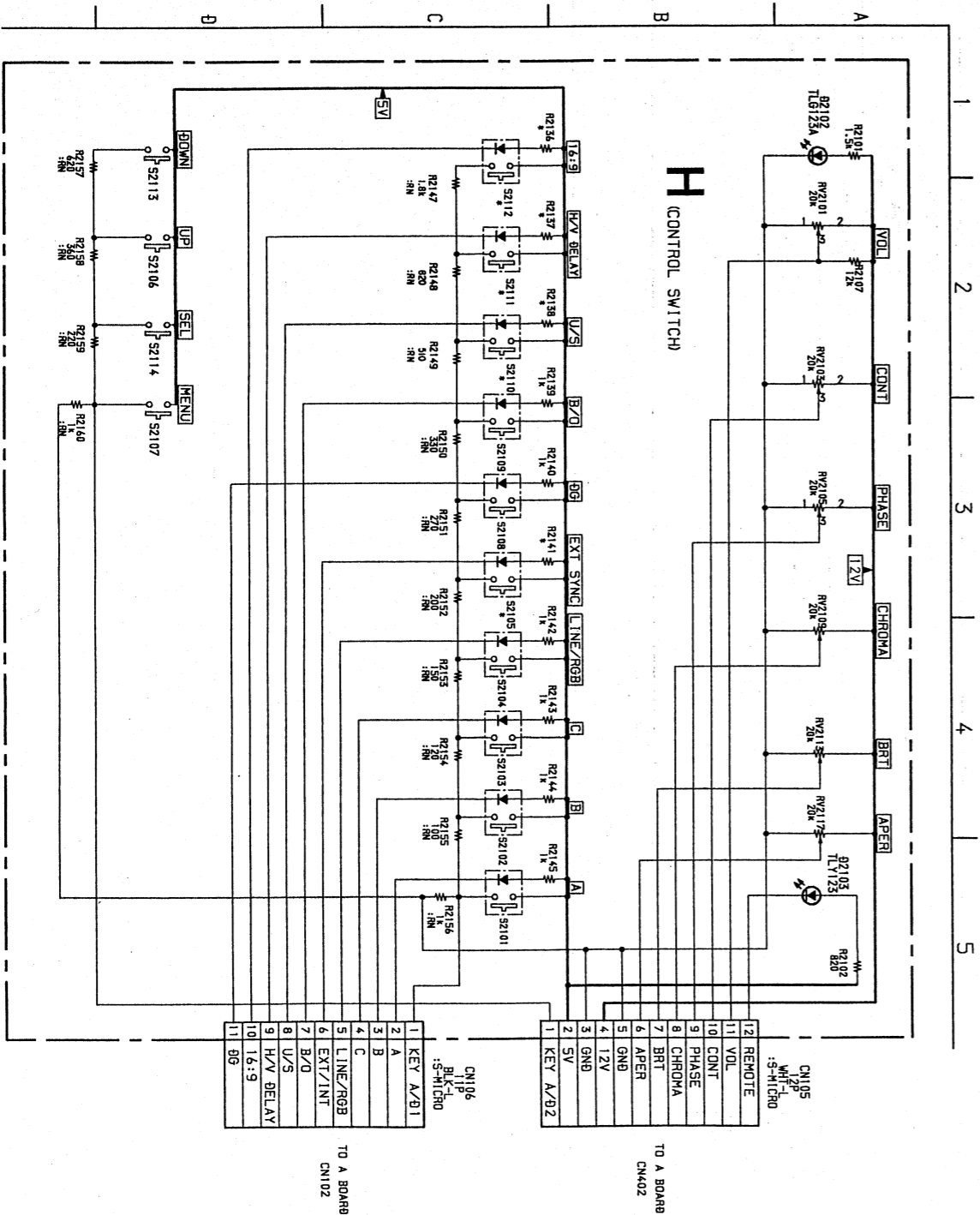




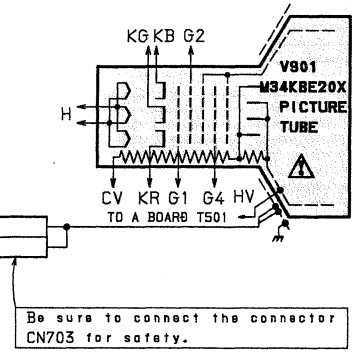
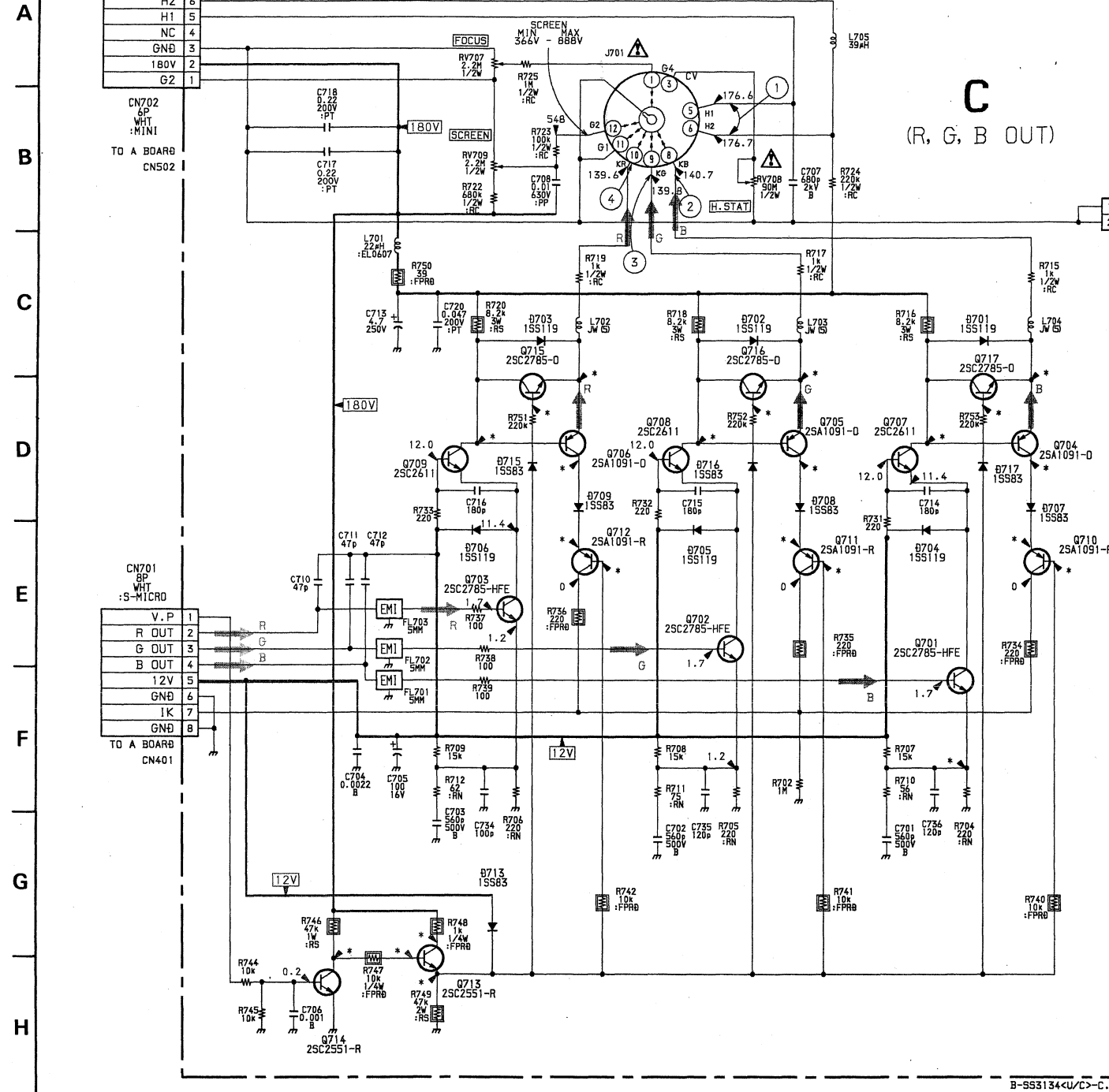
**(EXCEPT FOR PVM-1454QM)**

X BOARD	
D001	TALLY LED 1
D002	TALLY LED 2
D003	TALLY LED 3
D004	TALLY LED 4

## X BOARD



1 2 3 4 5 6 7 8 9 10



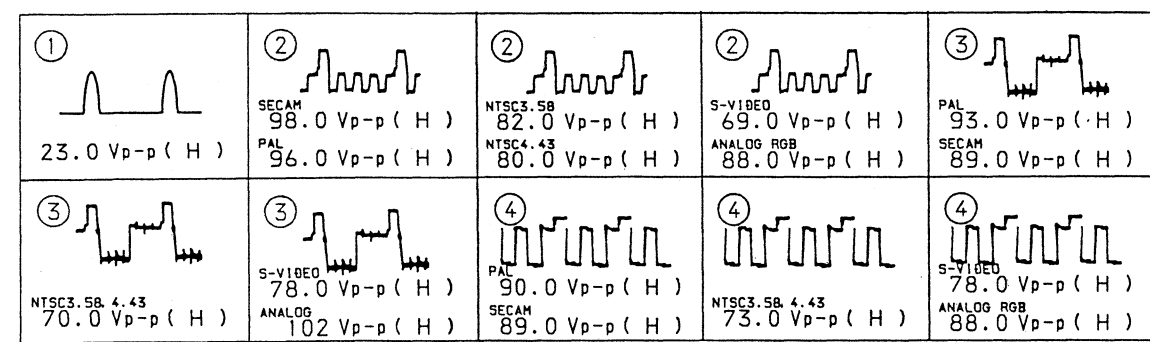
Be sure to connect the connector  
CN703 for safety.

C BOARD \* MARK

	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	ANALOG RGB
Q701 B	2.0	1.9	1.73	1.8	1.8	2.0
E	1.4	1.3	1.1	1.1	1.2	1.4
Q702 B	2.0	1.9	1.7	1.7	1.8	2.0
E	1.5	1.3	1.1	1.1	1.2	1.4
Q703 B	1.9	1.8	1.6	1.6	1.8	1.9
E	1.3	1.2	1.0	1.0	1.2	1.3
Q704 B	143.6	148.0	153.9	153.4	144.9	143.8
C	129.0	134.3	135.4	134.5	31.2	111.5
E	139.7	144.4	150.3	149.6	140.4	140.1
Q705 B	141.7	145.8	154.9	154.2	145.0	141.8
C	124.9	130.2	132.3	130.4	60.4	106.6
E	138.3	142.3	151.3	150.6	140.7	139.5
Q706 B	149.7	151.5	160.4	159.8	144.9	148.6
C	134.5	138.3	141.2	141.1	103.2	114.7
E	146.2	148.0	157.1	156.4	140.8	145.0
Q707 C	143.8	148.0	154.0	153.4	144.9	143.7
Q708 C	141.9	145.9	155.2	154.3	145.0	141.8
Q709 C	149.8	151.5	160.6	159.9	144.9	148.5
Q710 B	172.8	173.1	174.3	173.9	167.0	173.5
E	160.9	164.0	162.9	162.2	154.0	161.2
Q711 B	172.8	173.2	174.3	173.9	167.0	173.5
C	160.6	161.0	162.3	161.8	154.1	161.3
Q712 B	172.9	173.2	174.0	174.2	167.0	173.5
E	161.6	163.6	164.1	164.8	154.5	161.4
Q713 B	172.8	173.2	173.9	173.9	166.8	173.5
C	184.2	184.5	184.7	184.6	176.6	183.8
E	173.3	173.6	174.3	174.3	167.2	173.9
Q714 C	173.6	173.7	174.5	174.4	167.4	174.1
Q715 B	146.7	148.6	157.6	157.0	140.3	145.7
C	149.5	151.5	160.6	159.9	144.9	148.5
E	146.1	148.0	157.2	156.5	140.7	145.0
Q716 B	139.2	143.3	152.5	151.5	140.7	139.4
C	141.7	145.8	155.2	154.2	145.1	141.8
E	138.2	142.3	151.4	150.5	140.6	138.4
Q717 B	140.9	145.4	151.7	150.8	140.6	141.2
C	143.6	148.0	154.1	153.4	144.9	143.8
E	139.8	144.4	150.5	149.6	140.4	140.0

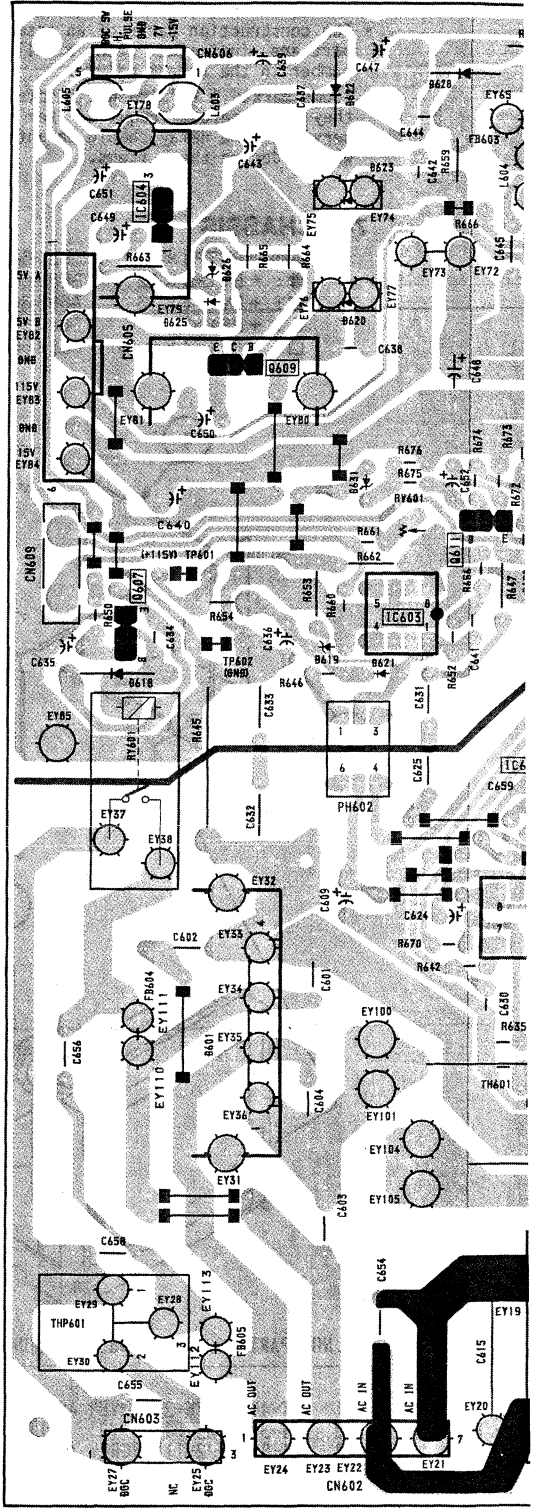
D701	PROTECT 1
D702	PROTECT 2
D703	PROTECT 3
D704	PROTECT 4
D705	PROTECT 5
D706	PROTECT 6
D707	PROTECT 7
D708	PROTECT 8
D709	PROTECT 9
D710	PROTECT 10
D711	PROTECT 11
D712	PROTECT 12
D713	PROTECT 13
Q701	B DRIVE
Q702	G DRIVE
Q703	R DRIVE
Q704	B BUFF
Q705	G BUFF
Q706	R BUFF
Q707	B OUT
Q708	G OUT
Q709	R OUT
Q710	IK SW 1
Q711	IK SW 2
Q712	IK SW 3
Q713	V. BLK OUT
Q714	V. BLK INT
Q715	TRACE SW 1
Q716	TRACE SW 2
Q717	TRACE SW 3

C BOARD WAVEFORMS



G [POWER SUPPLY] Q [VIDEO IN R, G, B S]

G BOARD





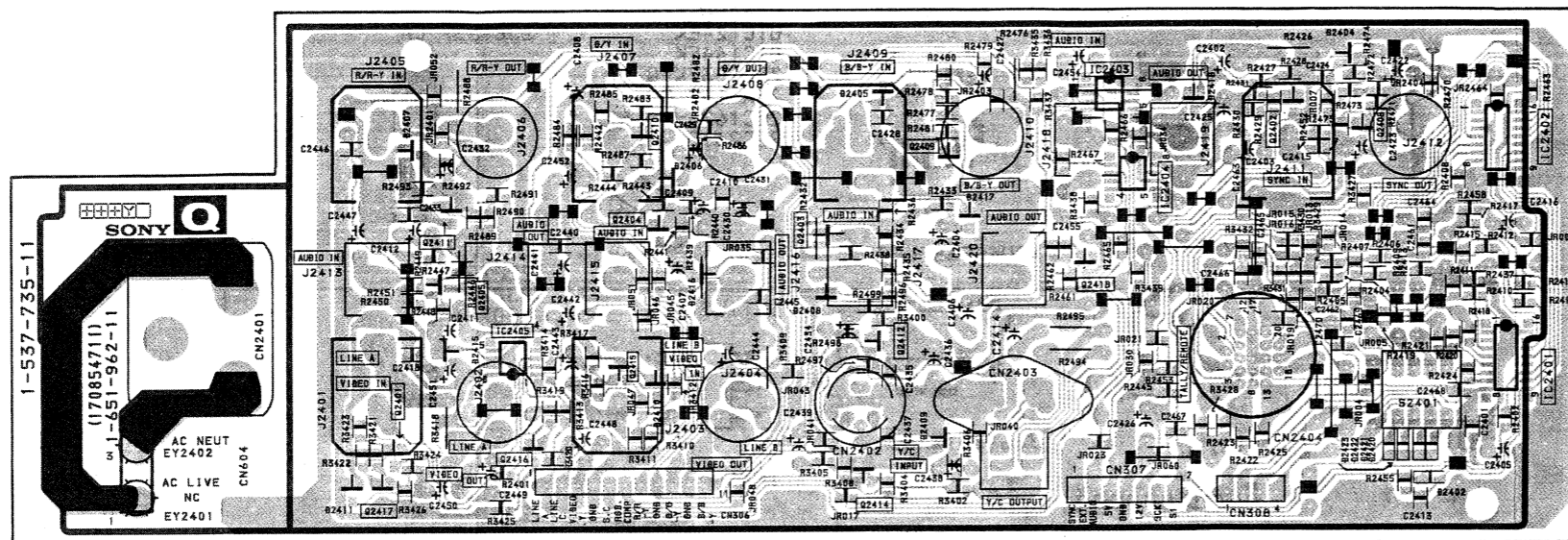
PVM-1450QM/1454QM

PVM-1450QM/1454QM

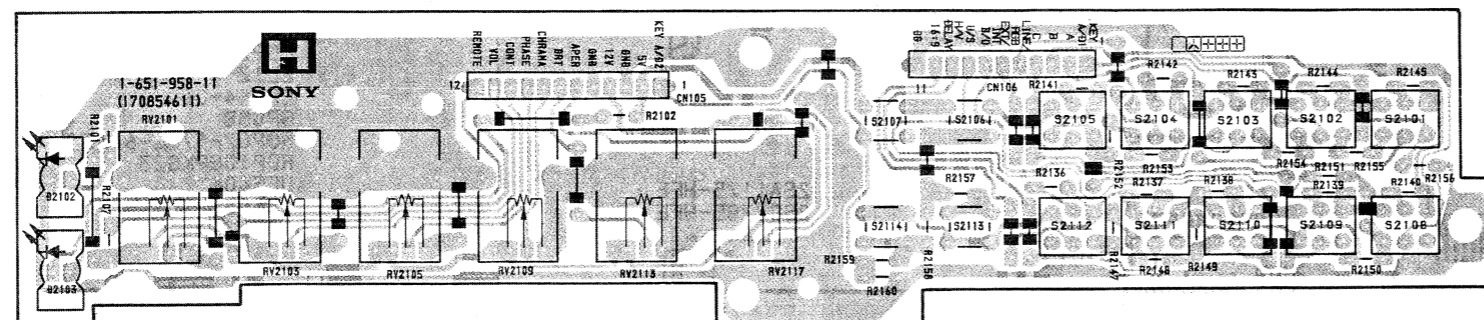
PVM-1450QM/1454QM

**H** [CONTROL SWITCH] **X** [INDICATOR] **J** [POWER SWITCH] **C** [R. G. B OUT]

- Q BOARD -

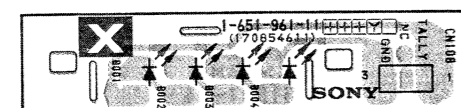


- H BOARD -

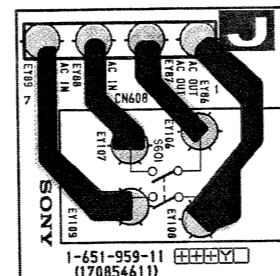


(EXCEPT For PVM-1454QM)

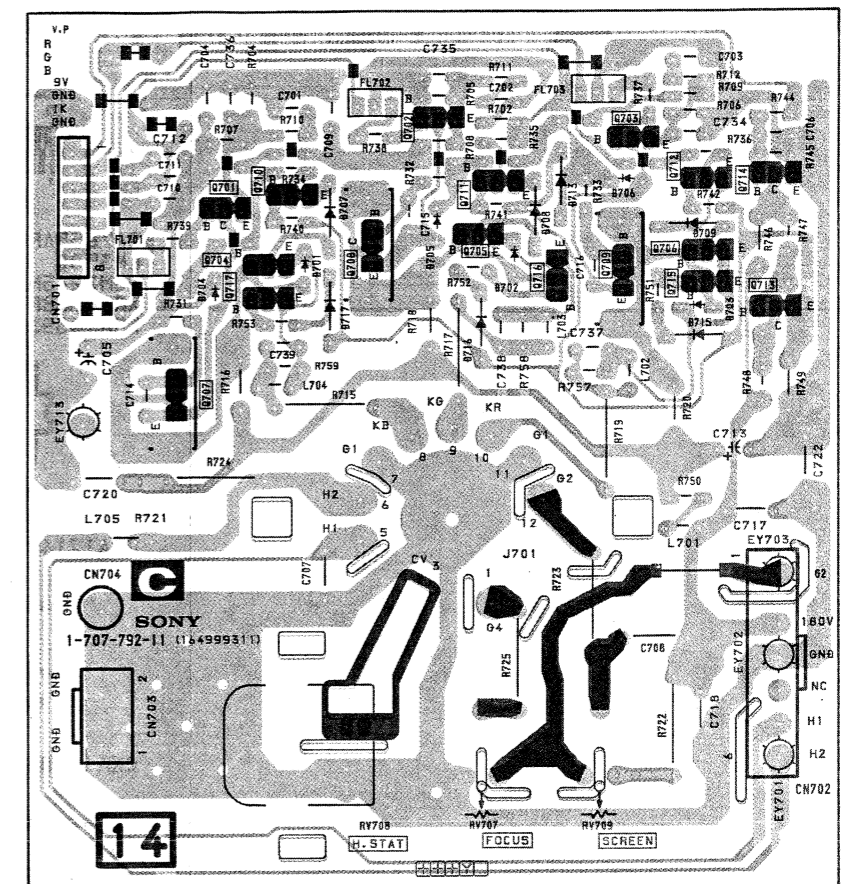
- X BOARD -



- J BOARD -



- C BOARD -

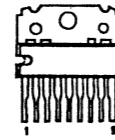


Schematic diagram

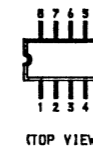
← **C** board

# 6-5. SEMICONDUCTONS

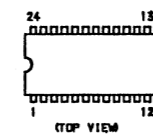
AN5265



BA7655AF-E2  
LM358D  
NJM2245M  
XRA4558F  
XRA10393F



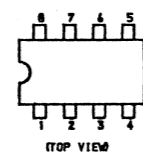
CXA1214P



CXA1478S



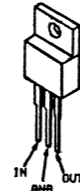
IR9431  
ST24C02AB1



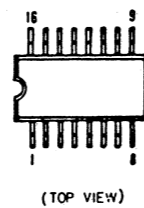
LM324D  
MC14024BF  
MC74HC36F  
XRU4066BF-E2  
XRU4584BF



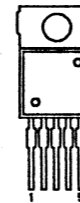
LM7805CT



MC14094BF



MC14538BF



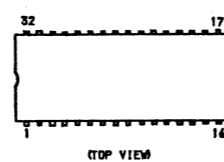
MM1108XS



MM1148XF  
MM1149XF



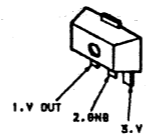
M51279FP



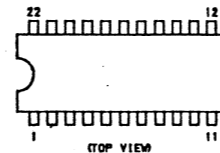
M62358FP-E1



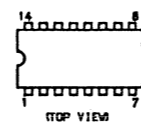
S-80743AL-A7-S



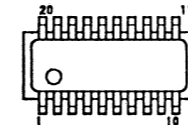
μPC1377C



μPC1394C



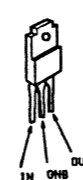
μPD6451AGT-632-E2  
μPD6451AGT-629-E2



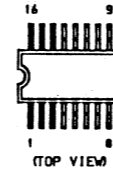
μPD78013YCW-Y03



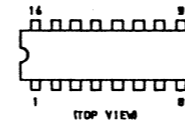
XRA17812T



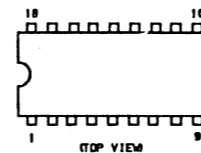
XRU4052BF



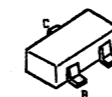
XRU4053BF-E2



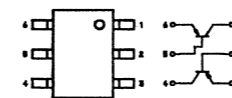
Z8612812PSC



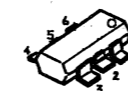
DTA144EK  
DTC124EK  
DTC144EK  
2SA1037K-Q  
2SA1162-G  
2SC1623-L5L6  
2SC2412K



IMT1US



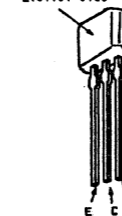
IMX1



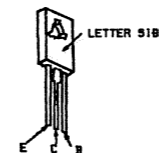
2SA1091-D  
2SC2551D  
2SC2551-RO



2SA1175-HFE  
2SC2785-HFE



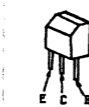
2SA1220A-P  
2SC2611  
2SC2688-LK  
2SC2690A-Q



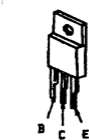
2SC3460  
2SD1397-CA



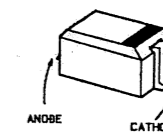
2SC2958-L  
2SD774-3  
2SD774-34



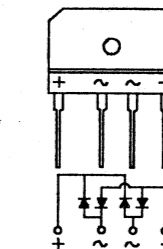
2SD1134-C  
2SD1944-K



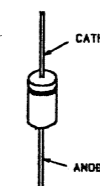
DTZ11B  
DTZ13C  
DTZ3.6A  
DTZ5.6B  
DTZ6.2  
MA110  
RD4.7SB  
1SV232-TPH3  
1SV230-TPHR3



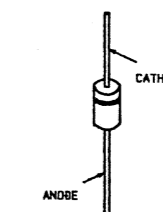
D4SB60L



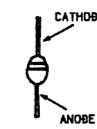
EGP10D  
EGP30D  
EGP20G  
EL1Z  
ERB44-06  
GP08D  
RGP02-17EL-6433  
RGP10GPKG23  
UF5406  
1SS83  
10E-2



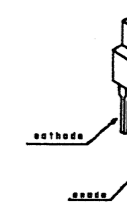
ERC06-15S  
RH-1A  
RH-1Z  
RU-3AM  
S1B01-04  
S1B01-06



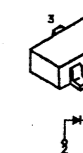
ERC38-06  
V19E  
V19G



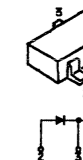
FML-G12S



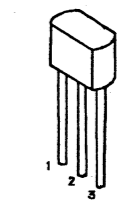
MA151WK



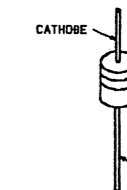
MA157  
1SS226



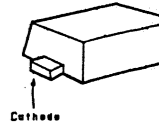
MC932



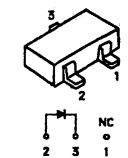
RD110EB  
RD15ES-B2  
RD3.9ES-B1  
RD39ES-B4  
RD6.8ES-B2  
1SS119



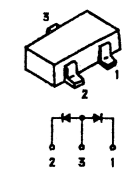
RD10SBL



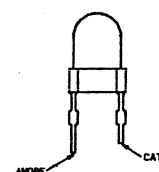
1SS184



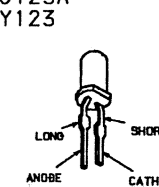
1S2835  
1S2836



SEL3810DLC05



SLP281C-50  
TLG123A  
TLY123





## SECTION 7 EXPLODED VIEWS

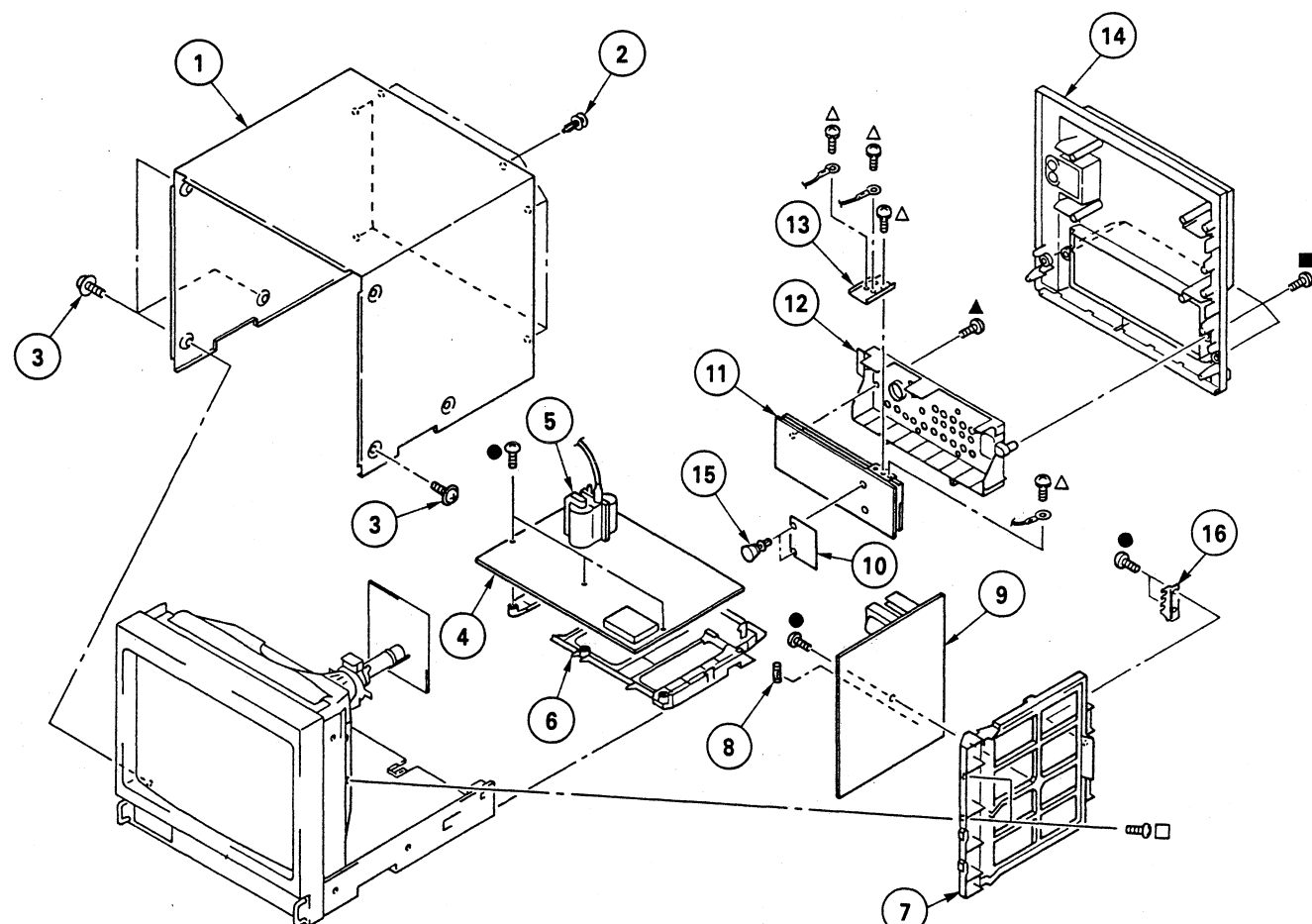
### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

### 7-1. CHASSIS

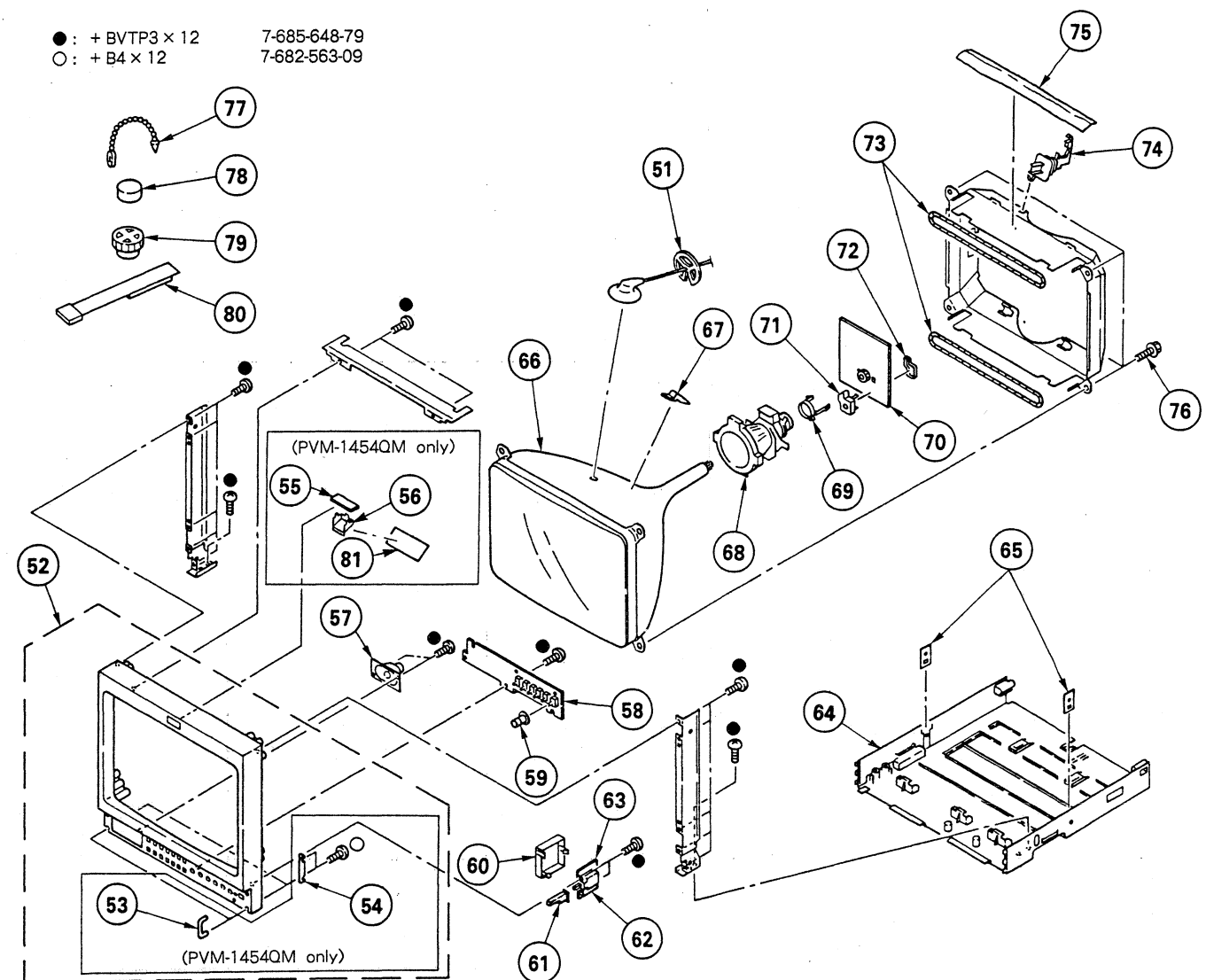
- $\Delta$ : + BVTP3  $\times$  8 7-685-646-79
- $\bullet$ : + BVTP3  $\times$  12 7-685-648-79
- $\blacksquare$ : + BVTP4  $\times$  16 7-685-663-79
- $\triangle$ : + PS4  $\times$  8 7-682-661-09
- $\square$ : + BVTT4  $\times$  8 (S) 7-682-561-04



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4031-775-2	COVER ASSY, TOP		10	*4-044-053-01	SHEET, AC COVER	
2	4-391-825-01	RIVET, NYLON		11	1-537-735-11	TERMINAL BOARD ASSY, I/O(A) (PVM-1454QM)	
3	4-847-802-11	SCREW (OS), CASE, CLAW		12	1-537-735-21	TERMINAL BOARD ASSY, I/O(B) (PVM-1450QM)	
4	*A-1297-194-A	A BOARD, COMPLETE (PVM-1450QM)		13	4-043-688-01	PANEL, CONNECTOR (PVM-1454QM)	
	*A-1297-195-A	A BOARD, COMPLETE (PVM-1454QM)		14	4-043-688-11	PANEL, CONNECTOR (PVM-1450QM)	
5	$\Delta$ 1-453-163-11	TRANSFORMER ASSY, FLYBACK		15	*4-043-678-01	TERMINAL, GROUND	
6	*4-043-690-01	BRACKET, MAIN		16	4-043-687-01	COVER, REAR	
7	*4-043-689-01	BRACKET, G			4-386-618-01	RIVET, T TYPE	
8	$\Delta$ 1-576-231-11	FUSE (H.B.C.) (4.0A/250V)			*4-044-256-01	SHEET METAL, G REINFORCEMENT	
9	*A-1316-174-A	G BOARD, COMPLETE					

### 7-2. PICTURE TUBE

- $\bullet$ : + BVTP3  $\times$  12 7-685-648-79
- $\circ$ : + B4  $\times$  12 7-682-563-09



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*3-704-372-01	HOLDER, HV CABLE		68	$\Delta$ 1-451-329-11	DEFLECTION YOKE (Y14FZA)	
52	X-4031-757-1	BEZEL ASSY (PVM-1450QM)	53, 54	69	*4-382-050-01	BAND, C PC BOARD	
	X-4031-756-1	BEZEL ASSY (PVM-1454QM)	53, 54	70	*A-1331-299-A	C BOARD, COMPLETE	
53	4-043-680-01	HANDLE, PROTECTOR (PVM-1454QM)		71	*4-374-912-01	COVER (MAIN), CV VOL	
54	*4-043-679-01	REINFORCEMENT, HANDLE (PVM-1454QM)		72	*4-374-913-01	COVER (REAR LID), CV VOL	
55	*A-1390-390-A	X BOARD, COMPLETE (PVM-1454QM)		73	$\Delta$ 1-426-442-21	COIL, DEMAGNETIZATION	
56	*4-043-682-01	REFLECTOR, LED (PVM-1454QM)		74	4-033-681-01	HOLDER, LEAD	
57	1-544-063-12	SPEAKER		75	4-391-833-01	CLOTH, PROTECTION	
58	*A-1371-971-A	H BOARD, COMPLETE (PVM-1454QM)		76	4-365-808-01	SCREW (5), TAPPING	
	*A-1371-972-A	H BOARD, COMPLETE (PVM-1450QM)		77	4-308-870-00	CLIP, LEAD WIRE	
59	X-4030-162-2	KNOB ASSY, CONTROL		78	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
60	4-043-681-01	COVER, AC SWITCH		79	1-452-094-00	MAGNET, ROTATABLE DISK; 10MM $\phi$	
61	4-043-683-01	BUTTON, POWER SWITCH		80	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
62	$\Delta$ 1-692-921-11	SWITCH, PUSH (A.C. POWER)		81	4-044-606-01	CUSHION, TALLY	
63	*A-1388-166-A	J BOARD, COMPLETE					
64	X-4031-711-1	CABINET ASSY, BOTTOM					
65	4-042-608-01	NUT, PLATE					
66	$\Delta$ 8-734-622-05	PICTURE TUBE (M34KBE21X) (PVM-1454QM)					
	$\Delta$ 8-736-255-05	PICTURE TUBE (A34JHS12X) (PVM-1450QM)					
67	3-703-961-01	SPACER, DY					

**PVM-1450QM/1454QM**

**A (PVM-1450QM)**

The components identified by shading and mark  are critical for safety.

Replace only with part number specified.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

## COILS

• MF :  $\mu F$ , PF :  $\mu\mu F$       • MMH : mH, UH :  $\mu H$

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
-  : Selected to yield optimum performance.

— 93 —

# PVM-1450QM/1454QM

## A (PVM-1450QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C348	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C417	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C349	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C418	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C350	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C419	1-124-472-11	ELECT 470MF	20% 10V
C351	1-124-477-11	ELECT 47MF	20% 25V	C420	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C352	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C421	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C353	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C422	1-124-903-11	ELECT 1MF	20% 50V
C354	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C423	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C355	1-124-903-11	ELECT 1MF	20% 50V	C424	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C356	1-124-927-11	ELECT 4.7MF	20% 50V	C425	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C358	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C426	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C359	1-124-477-11	ELECT 47MF	20% 25V	C427	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C360	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C428	1-124-119-00	ELECT 330MF	20% 16V
C361	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C429	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C362	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C430	1-124-119-00	ELECT 330MF	20% 16V
C363	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C431	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C364	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C432	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C365	1-106-343-00	MYLAR 0.001MF	10% 100V	C433	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C366	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C434	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C367	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C435	1-163-089-00	CERAMIC CHIP 6PF	0.25PF 50V
C368	1-124-907-11	ELECT 10MF	20% 50V	C436	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C369	1-164-298-11	CERAMIC CHIP 0.15MF	10% 25V	C437	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C370	1-124-477-11	ELECT 47MF	20% 25V	C438	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C371	1-124-477-11	ELECT 47MF	20% 25V	C439	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C372	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C440	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C373	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C441	1-126-962-11	ELECT 3.3MF	20% 50V
C374	1-124-903-11	ELECT 1MF	20% 50V	C442	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C375	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C443	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C376	1-124-902-00	ELECT 0.47MF	20% 50V	C444	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C377	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C445	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C378	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C446	1-163-089-00	CERAMIC CHIP 6PF	0.25PF 50V
C379	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C447	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C380	1-124-472-11	ELECT 470MF	20% 10V	C448	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C381	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C449	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C382	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C450	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C383	1-124-477-11	ELECT 47MF	20% 25V	C451	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C384	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C452	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C385	1-124-477-11	ELECT 47MF	20% 25V	C453	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C386	1-124-907-11	ELECT 10MF	20% 50V	C454	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C387	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C455	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C388	1-124-907-11	ELECT 10MF	20% 50V	C456	1-163-089-00	CERAMIC CHIP 6PF	0.25PF 50V
C389	1-124-477-11	ELECT 47MF	20% 25V	C457	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C390	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C458	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C391	1-124-477-11	ELECT 47MF	20% 25V	C459	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C392	1-164-298-11	CERAMIC CHIP 0.15MF	10% 25V	C460	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C393	1-164-298-11	CERAMIC CHIP 0.15MF	10% 25V	C461	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C394	1-124-477-11	ELECT 47MF	20% 25V	C462	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C395	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C463	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C396	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V	C464	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V
C397	1-124-477-11	ELECT 47MF	20% 25V	C465	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C398	1-124-477-11	ELECT 47MF	20% 25V	C466	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C399	1-124-477-11	ELECT 47MF	20% 25V	C467	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C400	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C469	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
C401	1-164-346-11	CERAMIC CHIP 1MF	16V	C470	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C402	1-124-910-11	ELECT 47MF	20% 50V	C471	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C403	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C472	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C406	1-124-916-11	ELECT 22MF	20% 50V	C473	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C407	1-124-477-11	ELECT 47MF	20% 25V	C475	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C408	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C476	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C409	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C477	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V
C410	1-124-916-11	ELECT 22MF	20% 50V	C478	1-124-907-11	ELECT 10MF	20% 50V
C411	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C479	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C414	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C482	1-124-472-11	ELECT 470MF	20% 10V
C415	1-124-907-11	ELECT 10MF	20% 50V	C483	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C416	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

# PVM-1450QM/1454QM

## A (PVM-1450QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C484	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	C559	1-136-173-00	FILM 0.47MF 5% 50V
C485	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	C561	1-136-159-00	FILM 0.033MF 5% 50V
C486	1-163-249-11	CERAMIC CHIP 82PF	5%	50V	C562	1-163-249-11	CERAMIC CHIP 82PF 5% 50V
C487	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	C564	1-124-907-11	ELECT 10MF 20% 50V
C488	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	C565	1-124-903-11	ELECT 1MF 20% 50V
C490	1-164-336-11	CERAMIC CHIP 0.33MF		25V	C566	1-106-367-00	MYLAR 0.01MF 10% 100V
C491	1-164-336-11	CERAMIC CHIP 0.33MF		25V	C568	1-124-903-11	ELECT 1MF 20% 50V
C492	1-164-336-11	CERAMIC CHIP 0.33MF		25V	C569	1-131-351-00	TANTALUM 4.7MF 10% 25V
C493	1-104-760-11	CERAMIC CHIP 0.047MF	10%	50V	C570	1-124-360-00	ELECT 1000MF 20% 16V
C494	1-104-760-11	CERAMIC CHIP 0.047MF	10%	50V	C571	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C495	1-124-907-11	ELECT 10MF	20%	50V	C572	1-104-709-11	ELECT 4.7MF 0 160V
C497	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V	C573	1-136-173-00	FILM 0.47MF 5% 50V
C498	1-124-925-11	ELECT 2.2MF	20%	50V	C574	1-249-383-11	CARBON 1.5 5% 1/4W F
C499	1-163-031-11	CERAMIC CHIP 0.01MF		50V	C575	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C500	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	C576	1-102-244-00	CERAMIC 220PF 10% 500V
C501	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	50V	C577	1-124-907-11	ELECT 10MF 20% 50V
C502	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	C578	1-136-540-11	FILM 0.82MF 5% 200V
C503	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	C579	1-126-804-11	ELECT 100MF 20% 50V
C504	1-136-175-00	FILM 0.068MF	5%	50V	C580	1-136-756-11	FILM 0.24MF 5% 200V
C505	1-163-135-00	CERAMIC CHIP 560PF	5%	50V	C581	1-124-927-11	ELECT 4.7MF 20% 50V
C506	1-124-902-00	ELECT 0.47MF	20%	50V	C582	1-102-002-00	CERAMIC 680PF 10% 500V
C507	1-126-375-11	ELECT 100MF	20%	25V	C583	1-136-569-11	FILM 1.2MF 5% 200V
C508	1-130-495-00	MYLAR 0.1MF	5%	50V	C584	1-123-267-00	ELECT 2.2MF 20% 160V
C509	1-124-935-11	ELECT 470MF	20%	100V	C585	1-124-666-11	ELECT 4.7MF 20% 250V
C511	1-108-700-11	MYLAR 0.047MF	10%	200V	C586	1-124-557-11	ELECT 1000MF 20% 25V
C512	1-124-902-00	ELECT 0.47MF	20%	50V	C587	1-102-030-00	CERAMIC 330PF 10% 500V
C513	1-126-096-11	ELECT 10MF	20%	25V	C588	1-124-667-11	ELECT 10MF 20% 50V
C514	1-129-718-00	FILM 0.022MF	10%	630V	C589	1-102-030-00	CERAMIC 330PF 10% 500V
C515	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	C590	1-126-387-11	ELECT 2.2MF 20% 50V
C516	1-102-030-00	CERAMIC 330PF	10%	500V	C591	1-106-371-00	MYLAR 0.015MF 10% 200V
C517	1-163-024-00	CERAMIC CHIP 0.018MF	10%	50V	C592	1-123-932-00	ELECT 4.7MF 20% 160V
C518	1-107-995-11	ELECT 100MF	0	160V	C593	1-165-319-11	CERAMIC CHIP 0.1MF 50V
C519	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V	C594	1-163-229-11	CERAMIC CHIP 12PF 5% 50V
C520	1-163-257-11	CERAMIC CHIP 180PF	5%	50V	C595	1-126-336-11	ELECT 220MF 20% 25V
C521	1-162-114-00	CERAMIC 0.0047MF		2KV	C596	1-124-478-11	ELECT 100MF 20% 25V
C522	1-126-375-11	ELECT 100MF	20%	25V	C597	1-164-346-11	CERAMIC CHIP 1MF 16V
C523	1-126-801-11	ELECT 1MF	20%	50V	C598	1-164-346-11	CERAMIC CHIP 1MF 16V
C525	Δ 1-136-545-11	FILM 0.0078MF	3%	2KV	C599	1-126-157-11	ELECT 10MF 20% 16V
C526	Δ 1-162-116-91	CERAMIC 680PF	10%	2KV	C1300	1-124-477-11	ELECT 47MF 20% 25V
C529	1-104-797-11	ELECT 0.47MF	20%	50V	C1301	1-124-477-11	ELECT 47MF 20% 25V
C530	1-124-120-11	ELECT 220MF	20%	25V	C1302	1-163-133-00	CERAMIC CHIP 470PF 5% 50V
C531	1-124-477-11	ELECT 47MF	20%	25V	C1303	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V
C532	1-163-031-11	CERAMIC CHIP 0.01MF		50V	C1304	1-124-477-11	ELECT 47MF 20% 25V
C533	1-102-212-00	CERAMIC 820PF	10%	500V	C1305	1-124-477-11	ELECT 47MF 20% 25V
C534	1-123-948-00	ELECT 22MF	20%	250V	C1306	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C535	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	C1307	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C537	1-124-913-11	ELECT 470MF	20%	50V	C1309	1-163-257-11	CERAMIC CHIP 180PF 5% 50V
C538	1-106-367-00	MYLAR 0.01MF	10%	100V	C1310	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C539	1-130-480-00	FILM 0.0056MF	5%	50V	C1312	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C540	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	C1314	1-124-477-11	ELECT 47MF 20% 25V
C541	1-124-927-11	ELECT 4.7MF	20%	50V	C1315	1-124-477-11	ELECT 47MF 20% 25V
C542	1-106-351-00	MYLAR 0.0022MF	10%	100V	C1316	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C543	1-106-351-00	MYLAR 0.0022MF	10%	100V	C1317	1-124-477-11	ELECT 47MF 20% 25V
C544	1-106-367-00	MYLAR 0.01MF	10%	100V	C1319	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V
C545	1-102-212-00	CERAMIC 820PF	10%	500V	C1320	1-124-477-11	ELECT 47MF 20% 25V
C547	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	C1321	1-124-477-11	ELECT 47MF 20% 25V
C548	1-102-212-00	CERAMIC 820PF	10%	500V	C1322	1-124-120-11	ELECT 220MF 20% 16V
C549	1-124-667-11	ELECT 10MF	20%	50V	C1323	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C550	1-126-163-11	ELECT 4.7MF	20%	50V	C1324	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C551	1-106-375-12	MYLAR 0.022MF	10%	100V	C1325	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C552	1-126-336-11	ELECT 220MF	20%	25V	C1326	1-124-477-11	ELECT 47MF 20% 25V
C556	1-124-907-11	ELECT 10MF	20%	50V	C1327	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C557	1-106-381-12	MYLAR 0.039MF	10%	100V	C1328	1-163-031-11	CERAMIC CHIP 0.01MF 50V
C558	1-124-903-11	ELECT 1MF	20%	50V			

PVM-1450QM/1454QM

A (PVM-1450QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1329	1-124-907-11	ELECT 10MF	20% 50V
C1330	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1331	1-124-477-11	ELECT 47MF	20% 25V
C1332	1-124-477-11	ELECT 47MF	20% 25V
C1333	1-124-477-11	ELECT 47MF	20% 25V
C1334	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C1335	1-124-477-11	ELECT 47MF	20% 25V
C1336	1-124-477-11	ELECT 47MF	20% 25V
C1338	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1339	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1340	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1342	1-102-963-00	CERAMIC 33PF	5% 50V
C1344	1-163-083-00	CERAMIC CHIP 1PF	0.25PF 50V
C1345	1-124-907-11	ELECT 10MF	20% 50V
C1347	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1349	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C1353	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1354	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C1355	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C1356	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C1357	1-124-119-00	ELECT 330MF	20% 16V
C1358	1-124-477-11	ELECT 47MF	20% 25V
C1359	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
C1360	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C1363	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C1365	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C1366	1-124-477-11	ELECT 47MF	20% 25V
C1367	1-124-477-11	ELECT 47MF	20% 25V
C1369	1-163-237-11	CERAMIC CHIP 27PF	5% 50V
C1370	1-163-237-11	CERAMIC CHIP 27PF	5% 50V
C1372	1-124-477-11	ELECT 47MF	20% 25V
C1373	1-124-477-11	ELECT 47MF	20% 25V
C1374	1-124-477-11	ELECT 47MF	20% 25V
C1375	1-124-927-11	ELECT 4.7MF	20% 50V
C1378	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C1380	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C1381	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C1393	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C1400	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1401	1-136-173-00	FILM 0.47MF	5% 50V
C1402	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1403	1-136-173-00	FILM 0.47MF	5% 50V
C1404	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V
C1405	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C1406	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V
C1407	1-163-085-00	CERAMIC CHIP 2PF	0.25PF 50V
C1408	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C1500	1-124-473-11	ELECT 1000MF	20% 10V
C1501	1-124-472-11	ELECT 470MF	20% 10V
C1502	1-101-821-00	CERAMIC 0.0022MF	500V
C1503	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C1504	1-124-907-11	ELECT 10MF	20% 50V
C1506	1-124-119-00	ELECT 330MF	20% 16V
C1507	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C1508	1-124-927-11	ELECT 4.7MF	20% 50V
C1510	1-124-927-11	ELECT 4.7MF	20% 50V
C1511	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C1512	1-124-927-11	ELECT 4.7MF	20% 50V
C1513	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C1514	1-130-477-00	MYLAR 0.0033MF	5% 50V
C1515	1-124-907-11	ELECT 10MF	20% 50V
C1516	1-163-063-00	CERAMIC CHIP 0.022MF	10% 50V
C1517	1-126-101-11	ELECT 100MF	20% 10V
C1518	1-124-477-11	ELECT 47MF	20% 16V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1519	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
<CONNECTOR>			
CN101	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P	
CN102	*1-564-514-11	PLUG, CONNECTOR 11P	
CN201	*1-564-506-11	PLUG, CONNECTOR 3P	
CN301	*1-564-514-11	PLUG, CONNECTOR 11P	
CN302	*1-564-510-11	PLUG, CONNECTOR 7P	
CN401	*1-564-511-11	PLUG, CONNECTOR 8P	
CN402	*1-564-515-11	PLUG, CONNECTOR 12P	
CN501	*1-580-798-11	CONNECTOR PIN (DY) 6P	
CN502	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
CN503	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P	
CN504	*1-564-508-11	PLUG, CONNECTOR 5P	
CN505	*1-564-506-11	PLUG, CONNECTOR 3P	
CN506	1-249-383-11	CARBON 1.5	5% 1/4W F
CN507	*1-535-419-00	TAB, FASTEN (PCB)	
<COMPOSITION CIRCUIT BLOCK>			
CP300	1-236-366-11	MODULE, TRAP	
CP301	1-236-365-11	MODULE, TRAP	
CP302	1-808-654-21	MODULE	
<DIODE>			
D101	8-719-800-76	DIODE 1SS226	
D102	8-719-800-76	DIODE 1SS226	
D103	8-719-045-70	DIODE 1SV230TPH3	
D104	8-719-800-76	DIODE 1SS226	
D105	8-719-800-76	DIODE 1SS226	
D106	8-719-901-33	DIODE 1SS133	
D107	8-719-800-76	DIODE 1SS226	
D108	8-719-901-33	DIODE 1SS133	
D109	8-719-801-78	DIODE 1SS184	
D110	8-719-404-46	DIODE MA110	
D111	8-719-977-05	DIODE DT26.2	
D112	8-719-404-46	DIODE MA110	
D113	8-719-159-06	DIODE RD4.7SB-T2	
D115	8-719-977-05	DIODE DT26.2	
D116	8-719-404-46	DIODE MA110	
D200	8-719-977-46	DIODE DTZ13C	
D300	8-719-025-07	DIODE 1SV232-TPH3	
D301	8-719-404-46	DIODE MA110	
D302	8-719-159-06	DIODE RD4.7SB-T2	
D303	8-719-977-05	DIODE DT26.2	
D304	8-719-801-78	DIODE 1SS184	
D305	8-719-800-76	DIODE 1SS226	
D307	8-719-404-46	DIODE MA110	
D308	8-719-901-33	DIODE 1SS133	
D309	8-719-404-46	DIODE MA110	
D310	8-719-104-34	DIODE 1S2836	
D311	8-719-045-70	DIODE 1SV230TPH3	
D312	8-719-404-46	DIODE MA110	
D313	8-719-801-78	DIODE 1SS184	
D315	8-719-404-46	DIODE MA110	
D317	8-719-404-46	DIODE MA110	
D320	8-719-404-46	DIODE MA110	
D322	8-719-404-46	DIODE MA110	
D323	8-719-404-46	DIODE MA110	
D324	8-719-045-70	DIODE 1SV230TPH3	
D326	8-719-045-70	DIODE 1SV230TPH3	
D327	8-719-104-34	DIODE 1S2836	

## A (PVM-1450QM)

REF.NO. PART NO. DESCRIPTION

D332	8-719-404-46	DIODE MA110
D335	8-719-404-46	DIODE MA110
D336	8-719-404-46	DIODE MA110
D337	8-719-404-46	DIODE MA110
D338	8-719-404-46	DIODE MA110
D339	8-719-404-46	DIODE MA110
D345	8-719-104-34	DIODE 1S2836
D346	8-719-104-34	DIODE 1S2836
D347	8-719-104-34	DIODE 1S2836
D361	8-719-104-34	DIODE 1S2836
D365	8-719-404-46	DIODE MA110
D381	8-719-404-46	DIODE MA110
D401	8-719-404-46	DIODE MA110
D404	8-719-800-76	DIODE 1SS226
D405	8-719-801-78	DIODE 1SS184
D406	8-719-404-46	DIODE MA110
D407	8-719-404-46	DIODE MA110
D408	8-719-404-46	DIODE MA110
D410	8-719-404-46	DIODE MA110
D411	8-719-404-46	DIODE MA110
D414	8-719-801-78	DIODE 1SS184
D415	8-719-801-78	DIODE 1SS184
D416	8-719-801-78	DIODE 1SS184
D417	8-719-801-78	DIODE 1SS184
D418	8-719-801-78	DIODE 1SS184
D421	8-719-404-46	DIODE MA110
D422	8-719-404-46	DIODE MA110
D423	8-719-800-76	DIODE 1SS226
D424	8-719-404-46	DIODE MA110
D425	8-719-800-76	DIODE 1SS226
D427	8-719-404-46	DIODE MA110
D500	8-719-404-46	DIODE MA110
D501	8-719-977-03	DIODE DTZ5.6B
D502	8-719-979-80	DIODE UF5406
D503	8-719-404-46	DIODE MA110
D504	8-719-901-83	DIODE 1SS83
D505	8-719-028-72	DIODE RGP02-17EL-6433
D506	8-719-945-80	DIODE ERC06-15S
D507	8-719-800-76	DIODE 1SS226
D508	8-719-800-76	DIODE 1SS226
D510	8-719-302-43	DIODE EL1Z
D511	8-719-404-46	DIODE MA110
D512	8-719-979-80	DIODE UF5406
D513	8-719-404-46	DIODE MA110
D514	8-719-971-20	DIODE ERC38-06
D515	8-719-971-20	DIODE ERC38-06
D516	8-719-404-46	DIODE MA110
D517	8-719-404-46	DIODE MA110
D518	8-719-404-46	DIODE MA110
D519	8-719-404-46	DIODE MA110
D520	8-719-801-78	DIODE 1SS184
D522	8-719-977-05	DIODE DTZ6.2
D523	8-719-404-46	DIODE MA110
D524	8-719-200-02	DIODE 10E-2
D525	8-719-200-02	DIODE 10E-2
D526	8-719-404-46	DIODE MA110
D527	8-719-200-02	DIODE 10E-2
D528	8-719-300-76	DIODE RH-1A
D529	8-719-200-02	DIODE 10E-2
D530	8-719-300-76	DIODE RH-1A
D531	8-719-977-32	DIODE DTZ11B
D532	8-719-800-76	DIODE 1SS226
D533	8-719-302-43	DIODE EL1Z
D534	8-719-404-46	DIODE MA110

REMARK

REF.NO. PART NO.

DESCRIPTION

REMARK

D535 8-719-404-46 DIODE MA110

D536 8-719-800-76 DIODE 1SS226

D538 8-719-800-76 DIODE 1SS226

D539 8-719-404-46 DIODE MA110

D540 8-719-404-46 DIODE MA110

## &lt;DELAY LINE&gt;

DL300 1-415-633-11 DELAY LINE, Y

DL301 1-415-632-11 DELAY LINE, Y

DL401 1-409-547-11 DELAY LINE

## &lt;FILTER&gt;

FL300 1-236-547-11 TRAP, LC

FL401 1-236-364-11 FILTER, BAND PASS

## &lt;IC&gt;

IC101 8-759-196-71 IC UPD78013YCW-Y03

IC102 8-759-168-37 IC ST24C01B1

IC103 8-759-008-48 IC MC74HC86F

IC104 8-759-262-59 IC UPD6451AGT-632-E2

IC105 8-759-196-70 IC M62358FP-E1

IC106 8-759-196-70 IC M62358FP-E1

IC107 8-759-196-70 IC M62358FP-E1

IC108 8-759-042-02 IC S-80743AL-A7-S

IC109 8-759-196-70 IC M62358FP-E1

IC110 8-759-196-70 IC M62358FP-E1

IC111 8-759-009-22 IC MC14094BF

IC200 8-759-420-04 IC AN5265

IC302 8-759-998-98 IC LM358D

IC303 8-752-056-67 IC CXA1214P

IC304 8-759-509-19 IC XRU4053BCF-E2

IC305 8-759-631-08 IC M51279FP

IC306 8-759-711-32 IC NJM2245M

IC309 8-759-711-32 IC NJM2245M

IC310 8-759-509-19 IC XRU4053BCF-E2

IC311 8-759-509-05 IC XRU4066BCF

IC312 8-759-711-32 IC NJM2245M

IC313 8-759-048-09 IC MM1149XF

IC314 8-759-501-21 IC MM1149XF

IC316 8-759-048-09 IC MM1148XF

IC318 8-759-509-57 IC XRU4584BF

IC320 8-759-501-21 IC MM1149XF

IC321 8-759-501-21 IC MM1149XF

IC322 8-759-501-21 IC MM1149XF

IC323 8-759-501-21 IC MM1149XF

IC324 8-759-501-21 IC MM1149XF

IC325 8-759-501-21 IC MM1149XF

IC326 8-759-060-00 IC BA10324AF

IC350 8-759-100-96 IC UPC4558G2

IC401 8-759-196-69 IC BA7655AF-E2

IC402 8-752-053-21 IC CXA1211M

IC403 8-759-509-05 IC XRU4066BCF

IC404 8-752-052-62 IC CXA1478S

IC405 8-759-509-19 IC XRU4053BCF-E2

IC406 8-759-998-98 IC LM358D

IC407 8-759-509-05 IC XRU4066BCF

IC408 8-759-509-91 IC XRA10393F

IC409 8-759-060-00 IC BA10324AF

IC410 8-759-932-64 IC BU4052BCF

IC411 8-759-008-92 IC MC14024BF

IC412 8-759-509-19 IC XRU4053BCF-E2

# PVM-1450QM/1454QM

## A (PVM-1450QM)

The components identified by shading and mark **Δ** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC413	8-759-509-19	IC XRU4053BCF-E2		Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
IC500	8-749-010-07	IC H8D7248		Q103	8-729-216-22	TRANSISTOR 2SA1162-G	
IC502	8-759-009-51	IC MC14538BF		Q107	8-729-901-06	TRANSISTOR DTA144EK	
IC503	8-759-009-51	IC MC14538BF		Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC504	8-752-053-21	IC CXA1211M					
IC505	8-759-520-07	IC XRA17812T		Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC507	8-759-100-60	IC UPC1377C		Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC508	8-752-053-21	IC CXA1211M		Q111	3-729-901-06	TRANSISTOR DTA144EK	
IC509	8-759-998-98	IC LM358D		Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
<COIL>				Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L101	1-408-609-41	INDUCTOR 33UH		Q200	8-729-140-96	TRANSISTOR 2SD774-34	
L102	1-408-417-00	INDUCTOR 47UH		Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L104	1-408-425-00	INDUCTOR 220UH		Q300	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L300	1-410-478-11	INDUCTOR 47UH		Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L301	1-408-411-00	INDUCTOR 15UH					
L302	1-412-008-31	INDUCTOR CHIP 15UH		Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
L303	1-408-416-00	INDUCTOR 39UH		Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L304	1-412-008-31	INDUCTOR CHIP 15UH		Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L305	1-410-196-11	INDUCTOR CHIP 2.2UH		Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L306	1-408-416-00	INDUCTOR 39UH		Q306	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L307	1-408-411-00	INDUCTOR 15UH		Q307	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L308	1-410-466-41	INDUCTOR 4.7UH		Q308	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L309	1-410-470-11	INDUCTOR 10UH		Q309	8-729-216-22	TRANSISTOR 2SA1162-G	
L311	1-410-470-11	INDUCTOR 10UH		Q310	8-729-216-22	TRANSISTOR 2SA1162-G	
L312	1-412-011-31	INDUCTOR CHIP 27UH		Q311	8-729-216-22	TRANSISTOR 2SA1162-G	
L314	1-412-011-31	INDUCTOR CHIP 27UH		Q312	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L316	1-412-011-31	INDUCTOR CHIP 27UH		Q313	8-729-216-22	TRANSISTOR 2SA1162-G	
L319	1-408-421-00	INDUCTOR 100UH		Q314	8-729-901-06	TRANSISTOR DTA144EK	
L320	1-410-478-11	INDUCTOR 47UH		Q315	8-729-216-22	TRANSISTOR 2SA1162-G	
L401	1-410-478-11	INDUCTOR 47UH		Q317	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L402	1-410-216-31	INDUCTOR CHIP 100UH		Q318	8-729-216-22	TRANSISTOR 2SA1162-G	
L403	1-410-216-31	INDUCTOR CHIP 100UH		Q319	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L404	1-410-216-31	INDUCTOR CHIP 100UH		Q320	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L405	1-408-419-00	INDUCTOR 68UH		Q321	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L406	1-408-419-00	INDUCTOR 68UH		Q322	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L407	1-408-413-00	INDUCTOR 22UH		Q323	8-729-901-01	TRANSISTOR DTC144EK	
L408	1-408-413-00	INDUCTOR 22UH		Q324	8-729-901-01	TRANSISTOR DTC144EK	
L409	1-410-214-31	INDUCTOR CHIP 68UH		Q325	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L500	1-459-155-00	COIL (WITH CORE) 45UH		Q326	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L501	1-407-365-00	COIL, CHOKE		Q327	8-729-216-22	TRANSISTOR 2SA1162-G	
L502	1-407-365-00	COIL, CHOKE		Q328	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
L503	1-410-093-11	INDUCTOR 33MMH		Q329	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
L504	1-410-666-31	INDUCTOR 18UH		Q330	8-729-216-22	TRANSISTOR 2SA1162-G	
L505	1-410-671-31	INDUCTOR 47UH		Q331	8-729-216-22	TRANSISTOR 2SA1162-G	
L507	1-410-686-11	INDUCTOR 1MMH		Q332	8-729-901-01	TRANSISTOR DTC144EK	
L508	1-412-530-31	INDUCTOR 27UH		Q333	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L509	1-459-075-11	COIL, DYNAMIC CONVERSION CHOKE		Q334	8-729-216-22	TRANSISTOR 2SA1162-G	
L511	1-459-106-00	COIL, DUST CORE		Q336	8-729-109-44	TRANSISTOR 2SK94-X4	
L512	1-459-155-00	COIL (WITH CORE) 45UH		Q337	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L513	1-412-447-11	INDUCTOR 3.9MMH		Q341	8-729-920-39	TRANSISTOR 1MT1US	
L514	1-459-104-00	COIL, DUST CORE		Q342	8-729-920-39	TRANSISTOR 1MT1US	
L515	1-459-059-00	COIL, DUST CORE		Q343	8-729-920-39	TRANSISTOR 1MT1US	
L516	Δ 1-459-760-13	COIL, HORIZONTAL LINEARITY		Q345	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L517	1-412-547-21	INDUCTOR 680UH		Q346	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q347	8-729-901-01	TRANSISTOR DTC144EK	
<NEON LAMP>				Q348	8-729-216-22	TRANSISTOR 2SA1162-G	
NL500	1-519-526-11	LAMP, NEON		Q349	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q350	8-729-216-22	TRANSISTOR 2SA1162-G	
<TRANSISTOR>				Q351	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q101	8-729-901-01	TRANSISTOR DTC144EK		Q352	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q353	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q354	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
				Q360	8-729-907-26	TRANSISTOR 1MX1	
				Q361	8-729-901-06	TRANSISTOR DTA144EK	
				Q363	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

## A (PVM-1450QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q364	8-729-901-01	TRANSISTOR DTC144EK		Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q365	8-729-901-01	TRANSISTOR DTC144EK		Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q372	8-729-901-01	TRANSISTOR DTC144EK		Q524	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q525	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q526	8-729-216-22	TRANSISTOR 2SA1162-G	
Q403	8-729-901-01	TRANSISTOR DTC144EK		Q527	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-216-22	TRANSISTOR 2SA1162-G		<RESISTOR>			
Q405	8-729-216-22	TRANSISTOR 2SA1162-G		JR122	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q406	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR123	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q407	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR302	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q408	8-729-216-22	TRANSISTOR 2SA1162-G		JR304	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q409	8-729-216-22	TRANSISTOR 2SA1162-G		JR305	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q410	8-729-907-26	TRANSISTOR 1MX1		JR306	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q411	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q412	8-729-216-22	TRANSISTOR 2SA1162-G		R102	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q413	8-729-141-53	TRANSISTOR 2SK94-X2X3X4		R103	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q414	8-729-216-22	TRANSISTOR 2SA1162-G		R104	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
Q415	8-729-216-22	TRANSISTOR 2SA1162-G		R105	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
Q416	8-729-216-22	TRANSISTOR 2SA1162-G		R106	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q417	8-729-216-22	TRANSISTOR 2SA1162-G		R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q418	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R109	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q419	8-729-216-22	TRANSISTOR 2SA1162-G		R110	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
Q420	8-729-216-22	TRANSISTOR 2SA1162-G		R111	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q421	8-729-901-01	TRANSISTOR DTC144EK		R112	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q422	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R113	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
Q423	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R114	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q424	8-729-901-01	TRANSISTOR DTC144EK		R115	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q425	8-729-901-01	TRANSISTOR DTC144EK		R116	1-218-761-11	METAL CHIP 240K 0.50% 1/10W	
Q426	8-729-901-01	TRANSISTOR DTC144EK		R117	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
Q428	8-729-216-22	TRANSISTOR 2SA1162-G		R118	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q429	8-729-216-22	TRANSISTOR 2SA1162-G		R119	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
Q430	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R120	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q431	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R121	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q432	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R123	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q433	8-729-901-01	TRANSISTOR DTC144EK		R125	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q434	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R128	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q435	8-729-901-01	TRANSISTOR DTC144EK		R129	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q436	8-729-901-01	TRANSISTOR DTC144EK		R130	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
Q437	8-729-901-01	TRANSISTOR DTC144EK		R131	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q438	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R132	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q439	8-729-216-22	TRANSISTOR 2SA1162-G		R133	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
Q440	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R134	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q441	8-729-141-53	TRANSISTOR 2SK94-X2X3X4		R135	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
Q442	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R136	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q443	8-729-216-22	TRANSISTOR 2SA1162-G		R137	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q444	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R138	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q445	8-729-901-01	TRANSISTOR DTC144EK		R140	1-216-033-00	METAL GLAZE 220 5% 1/10W	
Q500	8-729-216-22	TRANSISTOR 2SA1162-G		R141	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
Q501	8-729-800-35	TRANSISTOR 2SD1397-CA		R142	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK		R143	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q503	8-729-313-42	TRANSISTOR 2SD1134-C		R144	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R147	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q505	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R148	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q506	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R149	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R150	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q508	8-729-216-22	TRANSISTOR 2SA1162-G		R151	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
Q511	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R153	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q512	8-729-195-82	TRANSISTOR 2SC2958-L		R154	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q513	8-729-122-03	TRANSISTOR 2SA1220A-P		R155	1-249-434-11	CARBON 27K 5% 1/4W	
Q514	8-729-901-00	TRANSISTOR DTC124EK		R156	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q515	8-729-169-02	TRANSISTOR 2SC2690A-Q		R157	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q517	8-729-901-06	TRANSISTOR DTA144EK		R159	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
Q519	8-729-901-01	TRANSISTOR DTC144EK					
Q520	8-729-905-67	TRANSISTOR 2SD1944-K					

# **PVM-1450QM/1454QM**

## **A (PVM-1450QM)**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R160	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R332	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R162	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R333	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R163	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R334	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R164	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R335	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R165	1-216-295-00	METAL GLAZE	0 5% 1/10W	R336	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R167	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R337	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R170	1-216-295-00	METAL GLAZE	0 5% 1/10W	R338	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R173	1-216-295-00	METAL GLAZE	0 5% 1/10W	R339	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R175	1-216-295-00	METAL GLAZE	0 5% 1/10W	R340	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R177	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R341	1-216-673-11	METAL CHIP	8.2K 0.50% 1/10W
R180	1-216-295-00	METAL GLAZE	0 5% 1/10W	R342	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R181	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R343	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R183	1-216-295-00	METAL GLAZE	0 5% 1/10W	R344	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R185	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R345	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R187	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R346	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R188	1-216-295-00	METAL GLAZE	0 5% 1/10W	R347	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R189	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R348	1-216-031-00	METAL GLAZE	180 5% 1/10W
R190	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R349	1-216-694-11	METAL CHIP	62K 0.50% 1/10W
R192	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R350	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R193	1-216-295-00	METAL GLAZE	0 5% 1/10W	R351	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R195	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R352	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R197	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R353	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R198	1-216-295-00	METAL GLAZE	0 5% 1/10W	R354	1-259-877-11	CARBON	1.2M 5% 1/4W
R199	1-216-295-00	METAL GLAZE	0 5% 1/10W	R355	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R200	1-216-686-11	METAL CHIP	30K 0.50% 1/10W	R356	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R201	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R357	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R202	1-212-857-00	FUSIBLE	10 5% 1/4W F	R358	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R203	1-260-095-11	CARBON	470 5% 1/2W	R359	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R204	1-260-072-11	CARBON	4.7 5% 1/2W	R360	1-216-039-00	METAL GLAZE	390 5% 1/10W
R205	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R361	1-216-017-00	METAL GLAZE	47 5% 1/10W
R206	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R362	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R207	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R363	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R208	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R364	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R209	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R366	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R210	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R367	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R211	1-249-393-11	CARBON	10 5% 1/4W F	R368	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R237	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R371	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W	R372	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R302	1-216-025-00	METAL GLAZE	100 5% 1/10W	R373	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R303	1-216-025-00	METAL GLAZE	100 5% 1/10W	R374	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R304	1-216-025-00	METAL GLAZE	100 5% 1/10W	R375	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R305	1-216-295-00	METAL GLAZE	0 5% 1/10W	R376	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R306	1-216-295-00	METAL GLAZE	0 5% 1/10W	R377	1-259-881-11	CARBON	2.7M 5% 1/4W
R307	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R378	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R308	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R379	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R311	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R380	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R312	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R381	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R313	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R382	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R314	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R383	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R315	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R384	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R316	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R385	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R317	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R386	1-249-438-11	CARBON	56K 5% 1/4W
R318	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R387	1-216-029-00	METAL GLAZE	150 5% 1/10W
R319	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R388	1-216-033-00	METAL GLAZE	220 5% 1/10W
R320	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R389	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R321	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R390	1-249-393-11	CARBON	10 5% 1/4W F
R322	1-216-035-00	METAL GLAZE	270 5% 1/10W	R391	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R323	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R393	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R325	1-216-037-00	METAL GLAZE	330 5% 1/10W	R394	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R326	1-216-033-00	METAL GLAZE	220 5% 1/10W	R395	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R328	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R396	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R329	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R397	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R330	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R398	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R331	1-216-093-00	METAL GLAZE	68K 5% 1/10W				

## A (PVM-1450QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R399	1-216-111-00	METAL GLAZE	390K 5% 1/10W	R474	1-216-649-11	METAL CHIP	820 0.50% 1/10W
R401	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R475	1-216-025-00	METAL GLAZE	100 5% 1/10W
R402	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R476	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R403	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R477	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R406	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R478	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R407	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R479	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R408	1-216-689-11	METAL CHIP	39K 0.50% 1/10W	R480	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R410	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R481	1-216-033-00	METAL GLAZE	220 5% 1/10W
R411	1-216-033-00	METAL GLAZE	220 5% 1/10W	R482	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R412	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R483	1-216-025-00	METAL GLAZE	100 5% 1/10W
R413	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W	R484	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R416	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R485	1-216-033-00	METAL GLAZE	220 5% 1/10W
R417	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	R486	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R418	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W	R487	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R419	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R488	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R420	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R489	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R422	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R490	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R423	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R491	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R424	1-216-033-00	METAL GLAZE	220 5% 1/10W	R492	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R425	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R493	1-216-295-00	METAL GLAZE	0 5% 1/10W
R426	1-216-039-00	METAL GLAZE	390 5% 1/10W	R494	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R427	1-216-033-00	METAL GLAZE	220 5% 1/10W	R495	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R428	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R496	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R429	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R497	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R430	1-216-119-00	METAL GLAZE	820K 5% 1/10W	R498	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R431	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R499	1-216-033-00	METAL GLAZE	220 5% 1/10W
R432	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R500	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R434	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R501	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R435	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R502	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R436	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R503	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R437	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R504	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R438	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R505	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R439	1-216-033-00	METAL GLAZE	220 5% 1/10W	R506	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R440	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R507	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R441	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R508	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R442	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R509	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R443	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R510	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R444	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R511	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R445	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R512	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R447	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R513	1-216-295-00	METAL GLAZE	0 5% 1/10W
R448	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R514	1-216-295-00	METAL GLAZE	0 5% 1/10W
R449	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R515	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R450	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R516	1-216-103-91	METAL GLAZE	180K 5% 1/10W
R451	1-216-037-00	METAL GLAZE	330 5% 1/10W	R517	1-214-888-00	METAL	10K 1% 1/2W
R452	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R518	1-260-123-11	CARBON	100K 5% 1/2W
R453	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R519	1-216-017-00	METAL GLAZE	47 5% 1/10W
R455	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R520	1-249-423-11	CARBON	3.3K 5% 1/4W F
R456	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R521	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R457	1-216-025-00	METAL GLAZE	100 5% 1/10W	R522	1-260-111-11	CARBON	10K 5% 1/2W
R458	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R523	1-215-892-11	METAL OXIDE	1K 5% 2W F
R459	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R524	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R460	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R525	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R462	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R528	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R463	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R529	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R464	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R530	1-216-367-11	METAL OXIDE	0.68 5% 2W F
R465	1-216-025-00	METAL GLAZE	100 5% 1/10W	R531	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R466	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R532	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
R467	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R533	1-247-723-11	CARBON	6.8K 5% 1/4W F
R468	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R534	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R469	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R535	1-249-448-11	CARBON	1.2 5% 1/4W F
R470	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R538	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R471	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R539	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R472	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R540	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R473	1-216-121-00	METAL GLAZE	1M 5% 1/10W				

# PVM-1450QM/1454QM

## A (PVM-1450QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R541	1-249-383-11	CARBON	1.5 5% 1/4W F	R1115	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R542	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1116	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R543	1-212-883-00	FUSIBLE	120 5% 1/4W F	R1117	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R544	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R1118	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R545	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1119	1-216-694-11	METAL CHIP	62K 0.50% 1/10W
R546	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1120	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R547	1-249-438-11	CARBON	56K 5% 1/4W	R1123	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R548	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1124	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R549	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R1125	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R550	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R1128	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R551	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1129	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R552	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1131	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R553	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1132	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R554	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R1134	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R555	1-216-692-11	METAL CHIP	51K 0.50% 1/10W	R1135	1-216-295-00	METAL GLAZE	0 5% 1/10W
R556	1-216-464-11	METAL OXIDE	18K 5% 2W F	R1136	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R557	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1139	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R558	1-247-711-11	CARBON	680 5% 1/4W F	R1140	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R559	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1141	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R560	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R1142	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R561	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1143	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R563	1-216-017-00	METAL GLAZE	47 5% 1/10W	R1144	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R564	1-216-107-00	METAL GLAZE	270K 5% 1/10W	R1145	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R565	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1146	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R567	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1147	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R568	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1148	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R569	1-260-114-11	CARBON	18K 5% 1/2W	R1150	1-216-037-00	METAL GLAZE	330 5% 1/10W
R571	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1151	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R572	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R1155	1-216-133-00	METAL GLAZE	3.3M 5% 1/10W
R573	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1163	1-216-033-00	METAL GLAZE	220 5% 1/10W
R574	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R1164	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R578	1-216-693-11	METAL CHIP	56K 0.50% 1/10W	R1165	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R580	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1166	1-216-295-00	METAL GLAZE	0 5% 1/10W
R582	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1170	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R583	1-216-039-00	METAL GLAZE	390 5% 1/10W	R1171	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R584	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1172	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R585	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1176	1-216-295-00	METAL GLAZE	0 5% 1/10W
R586	1-216-686-11	METAL CHIP	30K 0.50% 1/10W	R1177	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R587	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R1178	1-216-295-00	METAL GLAZE	0 5% 1/10W
R588	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1179	1-216-041-00	METAL GLAZE	470 5% 1/10W
R589	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1180	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R590	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1181	1-216-295-00	METAL GLAZE	0 5% 1/10W
R591	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R1182	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R592	1-247-688-11	CARBON	10 5% 1/4W F	R1183	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R593	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R1184	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R594	1-260-104-91	CARBON	2.7K 5% 1/2W	R1185	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R595	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R1186	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R596	1-214-754-00	METAL	11K 1% 1/4W	R1187	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R597	1-249-417-11	CARBON	1K 5% 1/4W F	R1188	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R598	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1189	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R599	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1190	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1102	1-216-295-00	METAL GLAZE	0 5% 1/10W	R1191	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1103	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1192	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1104	1-216-699-11	METAL CHIP	100K 0.50% 1/10W	R1193	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1105	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1194	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1106	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R1195	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1107	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R1196	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1108	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	R1197	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1109	1-216-295-00	METAL GLAZE	0 5% 1/10W	R1198	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1110	1-216-295-00	METAL GLAZE	0 5% 1/10W	R1301	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1111	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1302	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1112	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1303	1-216-039-00	METAL GLAZE	390 5% 1/10W
R1113	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1304	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1114	1-216-049-00	METAL GLAZE	1K 5% 1/10W				

## A (PVM-1450QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1305	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1377	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R1306	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1378	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1307	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R1379	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1308	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1380	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1309	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1381	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1310	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1382	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1311	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1383	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1312	1-216-027-00	METAL GLAZE	120 5% 1/10W	R1384	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1313	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R1385	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1314	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1386	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1315	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1387	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1316	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1388	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R1317	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1389	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R1318	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R1390	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1319	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1391	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1320	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1392	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1321	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R1393	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R1322	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1394	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1324	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R1395	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1325	1-216-652-11	METAL CHIP	1.1K 0.50% 1/10W	R1396	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1326	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1397	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1328	1-216-125-00	METAL GLAZE	1.5M 5% 1/10W	R1398	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1329	1-216-103-91	METAL GLAZE	180K 5% 1/10W	R1399	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1330	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1401	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1331	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R1402	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1332	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R1403	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R1333	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1404	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1334	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R1405	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1336	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R1406	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1339	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1407	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1340	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1408	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1341	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1409	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1342	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1410	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R1343	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1413	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1344	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R1414	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1345	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1415	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R1346	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R1416	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1347	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1417	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1348	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1418	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1349	1-216-035-00	METAL GLAZE	270 5% 1/10W	R1419	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1350	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1420	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1421	1-216-649-11	METAL CHIP	820 0.50% 1/10W
R1352	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1422	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1353	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1423	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1354	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1424	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1355	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1425	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1356	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1426	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1358	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1427	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1359	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R1428	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1361	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1429	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W
R1362	1-216-676-11	METAL CHIP	11K 0.50% 1/10W	R1430	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1363	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1431	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1364	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1432	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1365	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W	R1434	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1436	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1367	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1437	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1368	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R1438	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1369	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R1439	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1370	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1440	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1371	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1441	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1372	1-249-437-11	CARBON	47K 5% 1/4W	R1442	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1373	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R1443	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1375	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1444	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1376	1-216-647-11	METAL CHIP	680 0.50% 1/10W				

# PVM-1450QM/1454QM

## A (PVM-1450QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1445	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1446	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1447	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1448	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1449	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1450	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1451	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R1452	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1453	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1454	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1455	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1456	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1457	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1458	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1459	1-216-133-00	METAL GLAZE	3.3M 5% 1/10W
R1460	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1461	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1462	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1463	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1464	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1465	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1466	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R1467	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1468	1-249-438-11	CARBON	56K 5% 1/4W
R1469	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1470	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1471	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1472	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1473	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1474	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R1475	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R1477	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1478	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1479	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1480	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1481	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R1482	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1483	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1484	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1485	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1486	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R1487	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1488	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1489	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1490	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1491	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1492	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1493	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1494	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1495	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1497	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1498	1-247-839-31	CARBON	2.2K 5% 1/4W
R1499	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1500	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1501	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1502	1-260-105-11	CARBON	3.3K 5% 1/2W
R1503	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R1504	1-216-686-11	METAL CHIP	30K 0.50% 1/10W
R1505	1-247-688-11	CARBON	10 5% 1/4W F
R1506	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1507	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1508	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1510	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1511	1-216-360-11	METAL OXIDE	8.2 5% 1W F

• The components identified by **■** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1512	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1513	1-247-756-11	CARBON	2.2K 5% 1/2W F
R1514	1-247-711-11	CARBON	680 5% 1/4W F
R1515	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R1518	1-215-867-00	METAL OXIDE	470 5% 1W F
R1519	1-216-355-11	METAL OXIDE	3.3 5% 1W F
R1520	1-216-007-00	METAL GLAZE	18 5% 1/10W
R1521	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1522	1-249-400-11	CARBON	39 5% 1/4W F
R1523	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R1524	1-216-427-00	METAL OXIDE	120 5% 1W F
R1525	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1526	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1527	1-249-413-11	CARBON	470 5% 1/4W F
R1528	1-215-869-11	METAL OXIDE	1K 5% 1W F
R1530	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R1531	1-247-697-11	CARBON	56 5% 1/4W F
R1532	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1533	1-249-414-11	CARBON	560 5% 1/4W F
R1534	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
■ R1535 △			
■ R1536 △			
R1537	1-249-389-11	CARBON	4.7 5% 1/4W F
R1538	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1539	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1540	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R1541	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1542	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R1543	1-216-027-00	METAL GLAZE	120 5% 1/10W
R1544	1-216-117-00	METAL GLAZE	680K 5% 1/10W
R1547	1-216-393-00	METAL OXIDE	2.2 5% 3W F
R1549	1-260-094-11	CARBON	390 5% 1/2W
R1550	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R1551	1-249-393-11	CARBON	10 5% 1/4W F
R1552	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1554	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1555	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1556	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1557	1-218-760-11	METAL CHIP	220K 0.50% 1/10W
R1558	1-249-393-11	CARBON	10 5% 1/4W F
R1559	1-249-393-11	CARBON	10 5% 1/4W F
R1560	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1561	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1562	1-214-964-00	METAL	1M 1% 1/4W
R1563	1-214-964-00	METAL	1M 1% 1/4W
R1564	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1565	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1566	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1567	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1574	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1575	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1576	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1577	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1578	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1579	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2300	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2301	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2306	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2307	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2308	1-216-103-91	METAL GLAZE	180K 5% 1/10W
R2309	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2311	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2312	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R2315	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R2316	1-216-081-00	METAL GLAZE	22K 5% 1/10W

## A (PVM-1450QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2317	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2556	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R2320	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R2557	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R2323	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R2558	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R2325	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R2559	1-216-039-00	METAL GLAZE	390 5% 1/10W
R2326	1-216-041-00	METAL GLAZE	470 5% 1/10W	R2560	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2327	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R2561	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2328	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2562	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2329	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R2563	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R2330	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3301	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2331	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R3302	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2332	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3303	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2334	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3304	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2335	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3308	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2336	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R3311	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R2337	1-216-037-00	METAL GLAZE	330 5% 1/10W	R3312	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R2338	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3315	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2339	1-216-037-00	METAL GLAZE	330 5% 1/10W	R3316	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2341	1-216-037-00	METAL GLAZE	330 5% 1/10W	R3318	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2342	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R3319	1-216-027-00	METAL GLAZE	120 5% 1/10W
R2344	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R3321	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R2345	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	R3322	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2346	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3333	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2347	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3337	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R2348	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3338	1-218-759-11	METAL CHIP	200K 0.50% 1/10W
R2349	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R3339	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R2350	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3340	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R2351	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3344	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2352	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3345	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2353	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3346	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2354	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3347	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2356	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R3348	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2357	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R3349	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2358	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3350	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2362	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3351	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R2364	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3365	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2366	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3376	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2367	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R3377	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R2370	1-216-086-00	METAL GLAZE	36K 5% 1/10W	R3378	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R2371	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3390	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R2372	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R3394	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2374	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3395	1-249-417-11	CARBON	1K 5% 1/4W
R2375	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R3396	1-216-041-00	METAL GLAZE	470 5% 1/10W
R2376	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R3397	1-216-041-00	METAL GLAZE	470 5% 1/10W
R2377	1-216-033-00	METAL GLAZE	220 5% 1/10W	R4401	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R2378	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R4402	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2379	1-216-033-00	METAL GLAZE	220 5% 1/10W	R4404	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2380	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R4405	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R2381	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R4407	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R2382	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R4408	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2383	1-216-033-00	METAL GLAZE	220 5% 1/10W	R4409	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2384	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R4410	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2389	1-216-033-00	METAL GLAZE	220 5% 1/10W	R4411	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2394	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R4412	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2396	1-216-041-00	METAL GLAZE	470 5% 1/10W	R4413	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2397	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R4414	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2398	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R4415	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2399	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R4416	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2500	1-216-647-11	METAL CHIP	680 0.50% 1/10W				
R2501	1-216-083-00	METAL GLAZE	27K 5% 1/10W				
R2502	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R2551	1-216-091-00	METAL GLAZE	56K 5% 1/10W				
R2552	1-216-085-00	METAL GLAZE	33K 5% 1/10W				
R2553	1-216-083-00	METAL GLAZE	27K 5% 1/10W				
R2555	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W				

&lt;VARIABLE RESISTOR&gt;

RV501 1-223-102-00 RES, ADJ, WIREWOUND 120

# PVM-1450QM/1454QM

## A (PVM-1450QM/1454QM)

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<TRANSFORMER>				C165	1-165-319-11	CERAMIC CHIP 0.1MF	50V
T300	1-406-781-11	COIL		C166	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
T500	1-426-668-11	TRANSFORMER, FERRITE (HDT)		C167	1-124-472-11	ELECT 470MF	20% 10V
T501	Δ 1-453-163-11	TRANSFORMER ASSY, FLYBACK		C168	1-124-472-11	ELECT 470MF	20% 10V
<THERMISTOR>				C169	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
TH500	1-807-970-11	THERMISTOR		C171	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
<CRYSTAL>				C174	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
X101	1-579-175-11	VIBRATOR, CERAMIC		C200	1-124-927-11	ELECT 4.7MF	20% 50V
X300	1-577-259-11	VIBRATOR, CRYSTAL		C201	1-106-383-00	MYLAR 0.047MF	10% 100V
X301	1-527-722-00	OSCILLATOR, CRYSTAL		C202	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
*****				C203	1-124-927-11	ELECT 4.7MF	20% 50V
*A-1297-195-A	A BOARD, COMPLETE (PVM-1454QM)			C204	1-124-907-11	ELECT 10MF	20% 50V
*****				C205	1-124-360-00	ELECT 1000MF	20% 16V
1-540-044-11	SOCKET, IC			C206	1-126-375-11	ELECT 100MF	20% 25V
*4-030-359-01	HEAT SINK, H. PIN			C207	1-124-478-11	ELECT 100MF	20% 25V
*4-043-154-01	HOLDER, IC			C208	1-124-907-11	ELECT 10MF	20% 50V
*4-043-994-01	PLATE (CF), SHIELD			C209	1-124-927-11	ELECT 4.7MF	20% 50V
4-363-414-00	SPACER, MICA			C300	1-163-031-11	CERAMIC CHIP 0.01MF	50V
4-382-854-11	SCREW (M3X10), P, SW (+)			C304	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<BAND PASS FILTER>				C305	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
BPF400	1-236-363-11	FILTER, BAND PASS		C306	1-163-031-11	CERAMIC CHIP 0.01MF	50V
<CAPACITOR>				C309	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C105	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C310	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C106	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C311	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C114	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C312	1-124-925-11	ELECT 2.2MF	20% 50V
C115	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C313	1-163-145-00	CERAMIC CHIP 0.0015MF	5% 50V
C116	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C314	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C117	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C315	1-124-907-11	ELECT 10MF	20% 50V
C118	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C316	1-124-477-11	ELECT 47MF	20% 25V
C119	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C317	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C121	1-163-237-11	CERAMIC CHIP 27PF	5% 50V	C318	1-124-907-11	ELECT 10MF	20% 50V
C123	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C319	1-163-222-11	CERAMIC CHIP 5PF	0.25PF 50V
C124	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C320	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C132	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C322	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C133	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C323	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C134	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C324	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C135	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C325	1-124-907-11	ELECT 10MF	20% 50V
C136	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C326	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C140	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C327	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C141	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V	C328	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C142	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C329	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C143	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C330	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C144	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C331	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C145	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C332	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C154	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C333	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C155	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V	C334	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C156	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C335	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C157	1-163-019-00	CERAMIC CHIP 0.0068MF	10% 50V	C336	1-124-477-11	ELECT 47MF	20% 25V
C158	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	C337	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C159	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V	C338	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C161	1-124-477-11	ELECT 47MF	20% 16V	C339	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C162	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C340	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C164	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C341	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
				C342	1-163-018-00	CERAMIC CHIP 0.0056MF	10% 50V
				C343	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C344	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C345	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C346	1-124-903-11	ELECT 1MF	20% 50V
				C347	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
				C348	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C349	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C350	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
				C351	1-124-477-11	ELECT 47MF	20% 25V
				C352	1-163-031-11	CERAMIC CHIP 0.01MF	50V

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C353	1-165-319-11	CERAMIC CHIP 0.1MF	50V	C421	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C354	1-163-121-00	CERAMIC CHIP 150PF	5%	C422	1-124-903-11	ELECT 1MF	20%
C355	1-124-903-11	ELECT 1MF	20%	C423	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C356	1-124-927-11	ELECT 4.7MF	20%	C424	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C357	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C425	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C358	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C426	1-163-243-11	CERAMIC CHIP 47PF	5%
C359	1-124-477-11	ELECT 47MF	20%	C427	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C360	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C428	1-124-119-00	ELECT 330MF	20%
C361	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C429	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C362	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C430	1-124-119-00	ELECT 330MF	20%
C363	1-163-099-00	CERAMIC CHIP 18PF	5%	C431	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C364	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C432	1-164-004-11	CERAMIC CHIP 0.1MF	10%
C365	1-106-343-00	MYLAR 0.001MF	10%	C433	1-163-235-11	CERAMIC CHIP 22PF	5%
C366	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C434	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C367	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C435	1-163-089-00	CERAMIC CHIP 6PF	0.25PF
C368	1-124-907-11	ELECT 10MF	20%	C436	1-164-004-11	CERAMIC CHIP 0.1MF	10%
C369	1-164-298-11	CERAMIC CHIP 0.15MF	10%	C437	1-164-004-11	CERAMIC CHIP 0.1MF	10%
C370	1-124-477-11	ELECT 47MF	20%	C438	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C371	1-124-477-11	ELECT 47MF	20%	C439	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C372	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C440	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C373	1-163-141-00	CERAMIC CHIP 0.001MF	5%	C441	1-126-962-11	ELECT 3.3MF	20%
C374	1-124-903-11	ELECT 1MF	20%	C442	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C375	1-163-125-00	CERAMIC CHIP 220PF	5%	C443	1-163-243-11	CERAMIC CHIP 47PF	5%
C376	1-124-902-00	ELECT 0.47MF	20%	C444	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C377	1-163-809-11	CERAMIC CHIP 0.047MF	10%	C445	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C378	1-163-809-11	CERAMIC CHIP 0.047MF	10%	C446	1-163-089-00	CERAMIC CHIP 6PF	0.25PF
C379	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C447	1-163-263-11	CERAMIC CHIP 330PF	5%
C380	1-124-472-11	ELECT 470MF	20%	C448	1-163-243-11	CERAMIC CHIP 47PF	5%
C381	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C449	1-163-227-11	CERAMIC CHIP 10PF	0.5PF
C382	1-163-243-11	CERAMIC CHIP 47PF	5%	C450	1-163-809-11	CERAMIC CHIP 0.047MF	10%
C383	1-124-477-11	ELECT 47MF	20%	C451	1-164-004-11	CERAMIC CHIP 0.1MF	10%
C384	1-163-249-11	CERAMIC CHIP 82PF	5%	C452	1-163-263-11	CERAMIC CHIP 330PF	5%
C385	1-124-477-11	ELECT 47MF	20%	C453	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C386	1-124-907-11	ELECT 10MF	20%	C454	1-163-243-11	CERAMIC CHIP 47PF	5%
C387	1-163-141-00	CERAMIC CHIP 0.001MF	5%	C455	1-163-263-11	CERAMIC CHIP 330PF	5%
C388	1-124-907-11	ELECT 10MF	20%	C456	1-163-089-00	CERAMIC CHIP 6PF	0.25PF
C389	1-124-477-11	ELECT 47MF	20%	C457	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C390	1-163-243-11	CERAMIC CHIP 47PF	5%	C458	1-163-249-11	CERAMIC CHIP 82PF	5%
C391	1-124-477-11	ELECT 47MF	20%	C459	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C392	1-164-298-11	CERAMIC CHIP 0.15MF	10%	C460	1-164-004-11	CERAMIC CHIP 0.1MF	10%
C393	1-164-298-11	CERAMIC CHIP 0.15MF	10%	C461	1-163-119-00	CERAMIC CHIP 120PF	5%
C394	1-124-477-11	ELECT 47MF	20%	C462	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C395	1-163-235-11	CERAMIC CHIP 22PF	5%	C463	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C396	1-164-299-11	CERAMIC CHIP 0.22MF	10%	C464	1-164-299-11	CERAMIC CHIP 0.22MF	10%
C397	1-124-477-11	ELECT 47MF	20%	C465	1-163-097-00	CERAMIC CHIP 15PF	5%
C398	1-124-477-11	ELECT 47MF	20%	C466	1-163-119-00	CERAMIC CHIP 120PF	5%
C399	1-124-477-11	ELECT 47MF	20%	C467	1-163-119-00	CERAMIC CHIP 120PF	5%
C400	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C469	1-163-037-11	CERAMIC CHIP 0.022MF	10%
C401	1-164-346-11	CERAMIC CHIP 1MF	16V	C470	1-163-243-11	CERAMIC CHIP 47PF	5%
C402	1-124-910-11	ELECT 47MF	20%	C471	1-163-105-00	CERAMIC CHIP 33PF	5%
C403	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C472	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C406	1-124-916-11	ELECT 22MF	20%	C473	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C407	1-124-477-11	ELECT 47MF	20%	C475	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C408	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C476	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C409	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C477	1-164-299-11	CERAMIC CHIP 0.22MF	10%
C410	1-124-916-11	ELECT 22MF	20%	C478	1-124-907-11	ELECT 10MF	20%
C411	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C479	1-163-121-00	CERAMIC CHIP 150PF	5%
C414	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C482	1-124-472-11	ELECT 470MF	20%
C415	1-124-907-11	ELECT 10MF	20%	C483	1-163-249-11	CERAMIC CHIP 82PF	5%
C416	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C484	1-163-113-00	CERAMIC CHIP 68PF	5%
C417	1-164-232-11	CERAMIC CHIP 0.01MF	10%	C485	1-163-113-00	CERAMIC CHIP 68PF	5%
C418	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	C486	1-163-249-11	CERAMIC CHIP 82PF	5%
C419	1-124-472-11	ELECT 470MF	20%	C487	1-163-235-11	CERAMIC CHIP 22PF	5%
C420	1-163-809-11	CERAMIC CHIP 0.047MF	10%				

# PVM-1450QM/1454QM

## A (PVM-1454QM)

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C488	1-163-097-00	CERAMIC CHIP 15PF	5%	C561	1-136-159-00	FILM 0.033MF	5% 50V
C490	1-164-336-11	CERAMIC CHIP 0.33MF		C562	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C491	1-164-336-11	CERAMIC CHIP 0.33MF		C564	1-124-907-11	ELECT 10MF	20% 50V
C492	1-164-336-11	CERAMIC CHIP 0.33MF		C565	1-124-903-11	ELECT 1MF	20% 50V
C493	1-104-760-11	CERAMIC CHIP 0.047MF	10%	C566	1-106-367-00	MYLAR 0.01MF	10% 100V
C494	1-104-760-11	CERAMIC CHIP 0.047MF	10%	C567	1-136-499-11	FILM 0.047MF	5% 50V
C495	1-124-907-11	ELECT 10MF	20%	C568	1-124-903-11	ELECT 1MF	20% 50V
C496	1-163-249-11	CERAMIC CHIP 82PF	5%	C569	1-131-351-00	TANTALUM 4.7MF	10% 25V
C497	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	C570	1-124-360-00	ELECT 1000MF	20% 16V
C498	1-124-925-11	ELECT 2.2MF	20%	C571	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C499	1-163-031-11	CERAMIC CHIP 0.01MF		C572	1-104-709-11	ELECT 4.7MF	0 160V
C500	1-164-004-11	CERAMIC CHIP 0.1MF	10%	C573	1-136-173-00	FILM 0.47MF	5% 50V
C501	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	C574	1-249-383-11	CARBON 1.5	5% 1/4W
C502	1-163-141-00	CERAMIC CHIP 0.001MF	5%	C575	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C503	1-163-251-11	CERAMIC CHIP 100PF	5%	C576	1-102-244-00	CERAMIC 220PF	10% 500V
C504	1-136-175-00	FILM 0.068MF	5%	C577	1-124-907-11	ELECT 10MF	20% 50V
C505	1-163-135-00	CERAMIC CHIP 560PF	5%	C578	1-136-540-11	FILM 0.82MF	5% 200V
C506	1-124-902-00	ELECT 0.47MF	20%	C579	1-126-804-11	ELECT 100MF	20% 50V
C507	1-126-375-11	ELECT 100MF	20%	C580	1-136-756-11	FILM 0.24MF	5% 200V
C508	1-130-495-00	MYLAR 0.1MF	5%	C581	1-124-927-11	ELECT 4.7MF	20% 50V
C509	1-124-935-11	ELECT 470MF	20%	C582	1-102-002-00	CERAMIC 680PF	10% 500V
C511	1-108-700-11	MYLAR 0.047MF	10%	C583	1-136-569-11	FILM 1.2MF	5% 200V
C512	1-124-902-00	ELECT 0.47MF	20%	C584	1-123-267-00	ELECT 2.2MF	20% 160V
C513	1-126-096-11	ELECT 10MF	20%	C585	1-124-666-11	ELECT 4.7MF	20% 250V
C514	1-129-718-00	FILM 0.022MF	10%	C586	1-124-557-11	ELECT 1000MF	20% 25V
C515	1-163-809-11	CERAMIC CHIP 0.047MF	10%	C587	1-102-030-00	CERAMIC 330PF	10% 500V
C516	1-102-030-00	CERAMIC 330PF	10%	C588	1-124-667-11	ELECT 10MF	20% 50V
C517	1-163-024-00	CERAMIC CHIP 0.018MF	10%	C589	1-102-030-00	CERAMIC 330PF	10% 500V
C518	1-107-995-11	ELECT 100MF	0	C590	1-126-387-11	ELECT 2.2MF	20% 50V
C519	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	C591	1-106-371-00	MYLAR 0.015MF	10% 200V
C520	1-163-257-11	CERAMIC CHIP 180PF	5%	C592	1-123-932-00	ELECT 4.7MF	20% 160V
C521	1-162-114-00	CERAMIC 0.0047MF		C593	1-165-319-11	CERAMIC CHIP 0.1MF	50V
C522	1-126-375-11	ELECT 100MF	20%	C594	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C523	1-126-801-11	ELECT 1MF	20%	C595	1-126-336-11	ELECT 220MF	20% 25V
C525	$\Delta$ 1-136-545-11	FILM 0.0078MF	3%	C596	1-124-478-11	ELECT 100MF	20% 25V
C526	$\Delta$ 1-162-116-91	CERAMIC 680PF	10%	C597	1-164-346-11	CERAMIC CHIP 1MF	16V
C529	1-104-797-11	ELECT 0.47MF	20%	C598	1-164-346-11	CERAMIC CHIP 1MF	16V
C530	1-124-120-11	ELECT 220MF	20%	C599	1-126-157-11	ELECT 10MF	20% 16V
C531	1-124-477-11	ELECT 47MF	20%	C1300	1-124-477-11	ELECT 47MF	20% 25V
C532	1-163-031-11	CERAMIC CHIP 0.01MF		C1301	1-124-477-11	ELECT 47MF	20% 25V
C533	1-102-212-00	CERAMIC 820PF	10%	C1302	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C534	1-123-948-00	ELECT 22MF	20%	C1304	1-124-477-11	ELECT 47MF	20% 25V
C537	1-124-913-11	ELECT 470MF	20%	C1305	1-124-477-11	ELECT 47MF	20% 25V
C538	1-106-367-00	MYLAR 0.01MF	10%	C1306	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C539	1-130-480-00	FILM 0.0056MF	5%	C1307	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C540	1-163-133-00	CERAMIC CHIP 470PF	5%	C1308	1-124-443-00	ELECT 100MF	20% 10V
C541	1-124-927-11	ELECT 4.7MF	20%	C1309	1-163-257-11	CERAMIC CHIP 180PF	5% 50V
C542	1-106-351-00	MYLAR 0.0022MF	10%	C1310	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C543	1-106-351-00	MYLAR 0.0022MF	10%	C1311	1-124-477-11	ELECT 47MF	20% 25V
C544	1-106-367-00	MYLAR 0.01MF	10%	C1312	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C545	1-102-212-00	CERAMIC 820PF	10%	C1313	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C546	1-163-119-00	CERAMIC CHIP 120PF	5%	C1314	1-124-477-11	ELECT 47MF	20% 25V
C547	1-163-251-11	CERAMIC CHIP 100PF	5%	C1315	1-124-477-11	ELECT 47MF	20% 25V
C548	1-102-212-00	CERAMIC 820PF	10%	C1316	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C549	1-124-667-11	ELECT 10MF	20%	C1317	1-124-477-11	ELECT 47MF	20% 25V
C550	1-126-163-11	ELECT 4.7MF	20%	C1318	1-124-477-11	ELECT 47MF	20% 25V
C551	1-106-375-12	MYLAR 0.022MF	10%	C1319	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
C552	1-126-336-11	ELECT 220MF	20%	C1320	1-124-477-11	ELECT 47MF	20% 25V
C554	1-130-736-11	FILM 0.01MF	5%	C1321	1-124-477-11	ELECT 47MF	20% 25V
C555	1-124-907-11	ELECT 10MF	20%	C1322	1-124-120-11	ELECT 220MF	20% 16V
C556	1-124-907-11	ELECT 10MF	20%	C1323	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C557	1-106-381-12	MYLAR 0.039MF	10%	C1324	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C558	1-124-903-11	ELECT 1MF	20%	C1325	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C559	1-136-173-00	FILM 0.47MF	5%				

— 109 —

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF.NO. PART NO. DESCRIPTION

D111	8-719-977-05	DIODE DTZ6.2
D112	8-719-404-46	DIODE MA110
D113	8-719-159-06	DIODE RD4.7SB-T2
D114	8-719-404-46	DIODE MA110
D115	8-719-977-05	DIODE DTZ6.2
D116	8-719-404-46	DIODE MA110
D200	8-719-977-46	DIODE DTZ13C
D300	8-719-025-07	DIODE 1SV232-TPH3
D301	8-719-404-46	DIODE MA110
D302	8-719-159-06	DIODE RD4.7SB-T2
D303	8-719-977-05	DIODE DTZ6.2
D304	8-719-801-78	DIODE 1SS184
D305	8-719-800-76	DIODE 1SS226
D306	8-719-104-34	DIODE 1S2836
D307	8-719-404-46	DIODE MA110
D308	8-719-901-33	DIODE 1SS133
D309	8-719-404-46	DIODE MA110
D310	8-719-104-34	DIODE 1S2836
D311	8-719-045-70	DIODE 1SV230TPH3
D313	8-719-801-78	DIODE 1SS184
D314	8-719-404-46	DIODE MA110
D315	8-719-404-46	DIODE MA110
D317	8-719-404-46	DIODE MA110
D318	8-719-800-76	DIODE 1SS226
D319	8-719-800-76	DIODE 1SS226
D320	8-719-404-46	DIODE MA110
D322	8-719-404-46	DIODE MA110
D323	8-719-404-46	DIODE MA110
D324	8-719-045-70	DIODE 1SV230TPH3
D325	8-719-801-78	DIODE 1SS184
D326	8-719-045-70	DIODE 1SV230TPH3
D327	8-719-104-34	DIODE 1S2836
D332	8-719-404-46	DIODE MA110
D333	8-719-404-46	DIODE MA110
D335	8-719-404-46	DIODE MA110
D336	8-719-404-46	DIODE MA110
D337	8-719-404-46	DIODE MA110
D338	8-719-404-46	DIODE MA110
D339	8-719-404-46	DIODE MA110
D341	8-719-159-06	DIODE RD4.7SB-T2
D344	8-719-801-78	DIODE 1SS184
D345	8-719-104-34	DIODE 1S2836
D346	8-719-104-34	DIODE 1S2836
D347	8-719-104-34	DIODE 1S2836
D348	8-719-800-76	DIODE 1SS226
D349	8-719-800-76	DIODE 1SS226
D350	8-719-800-76	DIODE 1SS226
D351	8-719-800-76	DIODE 1SS226
D352	8-719-800-76	DIODE 1SS226
D353	8-719-800-76	DIODE 1SS226
D354	8-719-800-76	DIODE 1SS226
D355	8-719-800-76	DIODE 1SS226
D360	8-719-104-34	DIODE 1S2836
D361	8-719-104-34	DIODE 1S2836
D362	8-719-158-40	DIODE RD10SB1
D363	8-719-158-40	DIODE RD10SB1
D364	8-719-104-34	DIODE 1S2836
D365	8-719-404-46	DIODE MA110
D381	8-719-404-46	DIODE MA110
D401	8-719-404-46	DIODE MA110
D404	8-719-800-76	DIODE 1SS226
D405	8-719-801-78	DIODE 1SS184
D406	8-719-404-46	DIODE MA110
D407	8-719-404-46	DIODE MA110

REMARK

REF.NO. PART NO. DESCRIPTION

REMARK

D408	8-719-404-46	DIODE MA110
D410	8-719-404-46	DIODE MA110
D411	8-719-404-46	DIODE MA110
D414	8-719-801-78	DIODE 1SS184
D415	8-719-801-78	DIODE 1SS184
D416	8-719-801-78	DIODE 1SS184
D417	8-719-801-78	DIODE 1SS184
D418	8-719-801-78	DIODE 1SS184
D421	8-719-404-46	DIODE MA110
D422	8-719-404-46	DIODE MA110
D423	8-719-800-76	DIODE 1SS226
D424	8-719-404-46	DIODE MA110
D425	8-719-800-76	DIODE 1SS226
D426	8-719-159-06	DIODE RD4.7SB-T2
D427	8-719-404-46	DIODE MA110
D500	8-719-404-46	DIODE MA110
D501	8-719-977-03	DIODE DTZ5.6B
D502	8-719-979-80	DIODE UF5406
D503	8-719-404-46	DIODE MA110
D504	8-719-901-83	DIODE 1SS83
D505	8-719-028-72	DIODE RGP02-17EL-6433
D506	8-719-945-80	DIODE ERC06-15S
D507	8-719-800-76	DIODE 1SS226
D508	8-719-800-76	DIODE 1SS226
D509	8-719-404-46	DIODE MA110
D510	8-719-302-43	DIODE EL1Z
D512	8-719-979-80	DIODE UF5406
D513	8-719-404-46	DIODE MA110
D514	8-719-971-20	DIODE ERC38-06
D515	8-719-971-20	DIODE ERC38-06
D516	8-719-404-46	DIODE MA110
D517	8-719-404-46	DIODE MA110
D518	8-719-404-46	DIODE MA110
D519	8-719-404-46	DIODE MA110
D520	8-719-801-78	DIODE 1SS184
D521	8-719-901-33	DIODE 1SS133
D522	8-719-977-05	DIODE DTZ6.2
D523	8-719-404-46	DIODE MA110
D524	8-719-200-02	DIODE 10E-2
D525	8-719-200-02	DIODE 10E-2
D526	8-719-404-46	DIODE MA110
D527	8-719-200-02	DIODE 10E-2
D528	8-719-300-76	DIODE RH-1A
D529	8-719-200-02	DIODE 10E-2
D530	8-719-300-76	DIODE RH-1A
D531	8-719-977-32	DIODE DTZ11B
D532	8-719-800-76	DIODE 1SS226
D533	8-719-302-43	DIODE EL1Z
D534	8-719-404-46	DIODE MA110
D535	8-719-404-46	DIODE MA110
D536	8-719-800-76	DIODE 1SS226
D537	8-719-800-76	DIODE 1SS226
D538	8-719-800-76	DIODE 1SS226
D539	8-719-404-46	DIODE MA110
D540	8-719-404-46	DIODE MA110
D541	8-719-801-78	DIODE 1SS184
D542	8-719-901-33	DIODE 1SS133
<DELAY LINE>		
DL300	1-415-633-11	DELAY LINE, Y
DL301	1-415-632-11	DELAY LINE, Y
DL401	1-409-547-11	DELAY LINE

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF.NO. PART NO. DESCRIPTION

### <FILTER>

FL300 1-236-547-11 TRAP, LC  
FL401 1-236-364-11 FILTER, BAND PASS

### <IC>

IC101 8-759-196-71 IC UPD78013YCW-Y03  
IC102 8-759-168-37 IC ST24C01B1  
IC103 8-759-008-48 IC MC74HC86F  
IC104 8-759-262-59 IC UPD6451AGT-632-E2  
IC105 8-759-196-70 IC M62358FP-E1  
  
IC106 8-759-196-70 IC M62358FP-E1  
IC107 8-759-196-70 IC M62358FP-E1  
IC108 8-759-042-02 IC S-80743AL-A7-S  
IC109 8-759-196-70 IC M62358FP-E1  
IC110 8-759-196-70 IC M62358FP-E1  
  
IC111 8-759-009-22 IC MC14094BF  
IC200 8-759-420-04 IC AN5265  
IC301 8-752-053-21 IC CXA1211M  
IC302 8-759-998-98 IC LM358D  
IC303 8-752-056-67 IC CXA1214P  
  
IC304 8-759-509-19 IC XRU4053BCF-E2  
IC305 8-759-631-08 IC M51279FP  
IC306 8-759-711-32 IC NJM2245M  
IC309 8-759-711-32 IC NJM2245M  
IC310 8-759-509-19 IC XRU4053BCF-E2  
  
IC311 8-759-509-05 IC XRU4066BCF  
IC312 8-759-711-32 IC NJM2245M  
IC313 8-759-501-21 IC MM1149XF  
IC314 8-759-501-21 IC MM1149XF  
IC315 8-759-509-19 IC XRU4053BCF-E2  
  
IC316 8-759-048-09 IC MM1148XF  
IC317 8-759-009-51 IC MC14538BF  
IC318 8-759-509-57 IC XRU4584BF  
IC320 8-759-501-21 IC MM1149XF  
IC321 8-759-501-21 IC MM1149XF  
  
IC322 8-759-501-21 IC MM1149XF  
IC323 8-759-501-21 IC MM1149XF  
IC324 8-759-501-21 IC MM1149XF  
IC325 8-759-501-21 IC MM1149XF  
IC326 8-759-060-00 IC BA10324AF  
  
IC350 8-759-100-96 IC UPC4558G2  
IC401 8-759-196-69 IC BA7655AF-E2  
IC402 8-752-053-21 IC CXA1211M  
IC403 8-759-509-05 IC XRU4066BCF  
IC404 8-752-052-62 IC CXA1478S  
  
IC405 8-759-509-19 IC XRU4053BCF-E2  
IC406 8-759-998-98 IC LM358D  
IC407 8-759-509-05 IC XRU4066BCF  
IC408 8-759-509-91 IC XRA10393F  
IC409 8-759-060-00 IC BA10324AF  
  
IC410 8-759-932-64 IC BU4052BCF  
IC411 8-759-008-92 IC MC14024BF  
IC412 8-759-509-19 IC XRU4053BCF-E2  
IC413 8-759-509-19 IC XRU4053BCF-E2  
IC500 8-749-010-07 IC H8D7248  
  
IC502 8-759-009-51 IC MC14538BF  
IC503 8-759-009-51 IC MC14538BF  
IC504 8-752-053-21 IC CXA1211M  
IC505 8-759-520-07 IC XRA17812T  
IC506 8-759-009-51 IC MC14538BF

REMARK REF.NO. PART NO. DESCRIPTION REMARK

IC507 8-759-100-60 IC UPC1377C  
IC508 8-752-053-21 IC CXA1211M  
IC509 8-759-998-98 IC LM358D  
IC510 8-759-009-51 IC MC14538BF

### <COIL>

L101 1-408-609-41 INDUCTOR 33UH  
L102 1-408-417-00 INDUCTOR 47UH  
L104 1-408-425-00 INDUCTOR 220UH  
L105 1-410-482-31 INDUCTOR 100UH  
L300 1-410-478-11 INDUCTOR 47UH  
  
L301 1-408-411-00 INDUCTOR 15UH  
L302 1-412-008-31 INDUCTOR CHIP 15UH  
L303 1-408-416-00 INDUCTOR 39UH  
L304 1-412-008-31 INDUCTOR CHIP 15UH  
L305 1-410-196-11 INDUCTOR CHIP 2.2UH  
  
L306 1-408-416-00 INDUCTOR 39UH  
L307 1-408-411-00 INDUCTOR 15UH  
L308 1-410-466-41 INDUCTOR 4.7UH  
L309 1-410-470-11 INDUCTOR 10UH  
L311 1-410-470-11 INDUCTOR 10UH  
  
L312 1-412-011-31 INDUCTOR CHIP 27UH  
L314 1-412-011-31 INDUCTOR CHIP 27UH  
L316 1-412-011-31 INDUCTOR CHIP 27UH  
L317 1-410-090-41 INDUCTOR 18MMH  
L319 1-408-421-00 INDUCTOR 100UH  
  
L320 1-410-478-11 INDUCTOR 47UH  
L401 1-410-478-11 INDUCTOR 47UH  
L402 1-410-216-31 INDUCTOR CHIP 100UH  
L403 1-410-216-31 INDUCTOR CHIP 100UH  
L404 1-410-216-31 INDUCTOR CHIP 100UH  
  
L405 1-408-419-00 INDUCTOR 68UH  
L406 1-408-419-00 INDUCTOR 68UH  
L407 1-408-413-00 INDUCTOR 22UH  
L408 1-408-413-00 INDUCTOR 22UH  
L409 1-410-214-31 INDUCTOR CHIP 68UH  
  
L500 1-459-155-00 COIL (WITH CORE) 45UH  
L501 1-407-365-00 COIL, CHOKE  
L502 1-407-365-00 COIL, CHOKE  
L503 1-410-093-11 INDUCTOR 33MMH  
L504 1-410-666-31 INDUCTOR 18UH  
  
L505 1-410-671-31 INDUCTOR 47UH  
L507 1-410-686-11 INDUCTOR 1MMH  
L508 1-412-530-31 INDUCTOR 27UH  
L509 1-459-075-11 COIL, DYNAMIC CONVERSION CHOKE  
L511 1-459-106-00 COIL, DUST CORE  
  
L512 1-459-155-00 COIL (WITH CORE) 45UH  
L513 1-412-447-11 INDUCTOR 3.9MMH  
L514 1-459-104-00 COIL, DUST CORE  
L515 1-459-059-00 COIL, DUST CORE  
L516  $\Delta$  1-459-760-13 COIL, HORIZONTAL LINEARITY  
  
L517 1-412-547-21 INDUCTOR 680UH

### <NEON LAMP>

NL500 1-519-526-11 LAMP, NEON

### <TRANSISTOR>

Q101 8-729-901-01 TRANSISTOR DTC144EK  
Q102 8-729-216-22 TRANSISTOR 2SA1162-G  
Q103 8-729-216-22 TRANSISTOR 2SA1162-G  
Q104 8-729-907-26 TRANSISTOR 1MX1

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q105	8-729-901-06	TRANSISTOR DTA144EK		Q356	8-729-901-01	TRANSISTOR DTC144EK	
Q107	8-729-901-06	TRANSISTOR DTA144EK		Q357	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q358	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q359	8-729-216-22	TRANSISTOR 2SA1162-G	
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q360	8-729-907-26	TRANSISTOR 1MX1	
Q111	8-729-901-06	TRANSISTOR DTA144EK		Q361	8-729-901-06	TRANSISTOR DTA144EK	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q362	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q363	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q364	8-729-901-01	TRANSISTOR DTC144EK	
Q200	8-729-140-96	TRANSISTOR 2SD774-34		Q365	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q366	8-729-216-22	TRANSISTOR 2SA1162-G	
Q300	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q367	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q368	8-729-216-22	TRANSISTOR 2SA1162-G	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G		Q369	8-729-901-06	TRANSISTOR DTA144EK	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q372	8-729-901-01	TRANSISTOR DTC144EK	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q376	8-729-901-01	TRANSISTOR DTC144EK	
Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q377	8-729-901-06	TRANSISTOR DTA144EK	
Q306	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q378	8-729-901-01	TRANSISTOR DTC144EK	
Q307	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q308	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q309	8-729-216-22	TRANSISTOR 2SA1162-G		Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q310	8-729-216-22	TRANSISTOR 2SA1162-G		Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q311	8-729-216-22	TRANSISTOR 2SA1162-G		Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q312	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q406	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q313	8-729-216-22	TRANSISTOR 2SA1162-G		Q407	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q314	8-729-901-06	TRANSISTOR DTA144EK		Q408	8-729-216-22	TRANSISTOR 2SA1162-G	
Q315	8-729-216-22	TRANSISTOR 2SA1162-G		Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q316	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q410	8-729-907-26	TRANSISTOR 1MX1	
Q318	8-729-216-22	TRANSISTOR 2SA1162-G		Q411	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q319	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q412	8-729-216-22	TRANSISTOR 2SA1162-G	
Q320	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q413	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q321	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q414	8-729-216-22	TRANSISTOR 2SA1162-G	
Q322	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q415	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-901-01	TRANSISTOR DTC144EK		Q416	8-729-216-22	TRANSISTOR 2SA1162-G	
Q324	8-729-901-01	TRANSISTOR DTC144EK		Q417	8-729-216-22	TRANSISTOR 2SA1162-G	
Q325	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q418	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q326	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q419	8-729-216-22	TRANSISTOR 2SA1162-G	
Q327	8-729-216-22	TRANSISTOR 2SA1162-G		Q420	8-729-216-22	TRANSISTOR 2SA1162-G	
Q328	8-729-141-53	TRANSISTOR 2SK94-X2X3X4		Q421	8-729-901-01	TRANSISTOR DTC144EK	
Q329	8-729-141-53	TRANSISTOR 2SK94-X2X3X4		Q422	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q330	8-729-216-22	TRANSISTOR 2SA1162-G		Q423	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q331	8-729-216-22	TRANSISTOR 2SA1162-G		Q424	8-729-901-01	TRANSISTOR DTC144EK	
Q332	8-729-901-01	TRANSISTOR DTC144EK		Q425	8-729-901-01	TRANSISTOR DTC144EK	
Q333	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q426	8-729-901-01	TRANSISTOR DTC144EK	
Q334	8-729-216-22	TRANSISTOR 2SA1162-G		Q428	8-729-216-22	TRANSISTOR 2SA1162-G	
Q335	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q429	8-729-216-22	TRANSISTOR 2SA1162-G	
Q336	8-729-109-44	TRANSISTOR 2SK94-X4		Q430	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q337	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q431	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q338	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q432	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q339	8-729-216-22	TRANSISTOR 2SA1162-G		Q433	8-729-901-01	TRANSISTOR DTC144EK	
Q341	8-729-920-39	TRANSISTOR 1MT1US		Q434	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q342	8-729-920-39	TRANSISTOR 1MT1US		Q435	8-729-901-01	TRANSISTOR DTC144EK	
Q343	8-729-920-39	TRANSISTOR 1MT1US		Q436	8-729-901-01	TRANSISTOR DTC144EK	
Q345	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q437	8-729-901-01	TRANSISTOR DTC144EK	
Q346	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q438	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q347	8-729-901-01	TRANSISTOR DTC144EK		Q439	8-729-216-22	TRANSISTOR 2SA1162-G	
Q348	8-729-216-22	TRANSISTOR 2SA1162-G		Q440	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q349	8-729-216-22	TRANSISTOR 2SA1162-G		Q441	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q350	8-729-216-22	TRANSISTOR 2SA1162-G		Q442	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q351	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q443	8-729-216-22	TRANSISTOR 2SA1162-G	
Q352	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q444	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q353	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q445	8-729-901-01	TRANSISTOR DTC144EK	
Q354	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q500	8-729-216-22	TRANSISTOR 2SA1162-G	
Q355	8-729-120-28	TRANSISTOR 2SC1623-L5L6					

## A (PVM-1454QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q501	8-729-800-35	TRANSISTOR 2SD1397-CA		R135	1-216-085-00	METAL GLAZE 33K 5%	1/10W
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK		R136	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q503	8-729-313-42	TRANSISTOR 2SD1134-C		R137	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q505	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q506	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R138	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R139	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q508	8-729-216-22	TRANSISTOR 2SA1162-G		R140	1-216-033-00	METAL GLAZE 220 5%	1/10W
Q509	8-729-901-06	TRANSISTOR DTA144EK		R141	1-216-085-00	METAL GLAZE 33K 5%	1/10W
Q510	8-729-900-89	TRANSISTOR DTC144ES		R142	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q511	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q512	8-729-195-82	TRANSISTOR 2SC2958-L		R143	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q513	8-729-122-03	TRANSISTOR 2SA1220A-P		R144	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q514	8-729-901-00	TRANSISTOR DTC124EK		R145	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q515	8-729-169-02	TRANSISTOR 2SC2690A-Q		R147	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q517	8-729-901-06	TRANSISTOR DTA144EK		R148	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q518	8-729-901-01	TRANSISTOR DTC144EK					
Q519	8-729-901-01	TRANSISTOR DTC144EK		R149	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q520	8-729-905-67	TRANSISTOR 2SD1944-K		R150	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R151	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R152	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q524	8-729-119-78	TRANSISTOR 2SC2785-HFE		R153	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q525	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q526	8-729-216-22	TRANSISTOR 2SA1162-G		R154	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q527	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R155	1-249-434-11	CARBON 27K 5%	1/4W
<RESISTOR>				R156	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR122	1-216-295-00	METAL GLAZE 0 5%	1/10W	R157	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
JR123	1-216-295-00	METAL GLAZE 0 5%	1/10W	R158	1-216-295-00	METAL GLAZE 0 5%	1/10W
JR302	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R101	1-216-025-00	METAL GLAZE 100 5%	1/10W	R159	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R102	1-216-025-00	METAL GLAZE 100 5%	1/10W	R160	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
				R162	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R103	1-216-025-00	METAL GLAZE 100 5%	1/10W	R163	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R104	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R164	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R105	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W				
R106	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R165	1-216-295-00	METAL GLAZE 0 5%	1/10W
R107	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R167	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
				R168	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R108	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R169	1-216-107-00	METAL GLAZE 270K 5%	1/10W
R109	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R170	1-216-295-00	METAL GLAZE 0 5%	1/10W
R110	1-216-073-00	METAL GLAZE 10K 5%	1/10W				
R111	1-216-295-00	METAL GLAZE 0 5%	1/10W	R171	1-216-031-00	METAL GLAZE 180 5%	1/10W
R112	1-216-295-00	METAL GLAZE 0 5%	1/10W	R172	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R173	1-216-295-00	METAL GLAZE 0 5%	1/10W
R113	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R174	1-216-295-00	METAL GLAZE 0 5%	1/10W
R114	1-216-295-00	METAL GLAZE 0 5%	1/10W	R175	1-216-295-00	METAL GLAZE 0 5%	1/10W
R115	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R116	1-218-761-11	METAL CHIP 240K 0.50%	1/10W	R177	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R117	1-216-089-91	METAL GLAZE 47K 5%	1/10W	R180	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R181	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R118	1-216-295-00	METAL GLAZE 0 5%	1/10W	R183	1-216-295-00	METAL GLAZE 0 5%	1/10W
R119	1-216-689-11	METAL GLAZE 39K 5%	1/10W	R184	1-216-649-11	METAL CHIP 820 0.50%	1/10W
R120	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R121	1-216-295-00	METAL GLAZE 0 5%	1/10W	R185	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R122	1-216-295-00	METAL GLAZE 0 5%	1/10W	R186	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R187	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R123	1-216-295-00	METAL GLAZE 0 5%	1/10W	R188	1-216-295-00	METAL GLAZE 0 5%	1/10W
R124	1-216-295-00	METAL GLAZE 0 5%	1/10W	R189	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R125	1-216-295-00	METAL GLAZE 0 5%	1/10W				
R126	1-216-295-00	METAL GLAZE 0 5%	1/10W	R190	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R127	1-216-295-00	METAL GLAZE 0 5%	1/10W	R192	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R193	1-216-295-00	METAL GLAZE 0 5%	1/10W
R128	1-216-295-00	METAL GLAZE 0 5%	1/10W	R194	1-216-295-00	METAL GLAZE 0 5%	1/10W
R129	1-216-295-00	METAL GLAZE 0 5%	1/10W	R195	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R130	1-216-099-00	METAL GLAZE 120K 5%	1/10W				
R131	1-216-295-00	METAL GLAZE 0 5%	1/10W	R197	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R132	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R198	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R199	1-216-295-00	METAL GLAZE 0 5%	1/10W
R133	1-216-091-00	METAL GLAZE 56K 5%	1/10W	R200	1-216-686-11	METAL CHIP 30K 0.50%	1/10W
R134	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R201	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R202	1-212-857-00	FUSIBLE 10 5%	1/4W F
				R203	1-260-095-11	CARBON 470 5%	1/2W
				R204	1-260-072-11	CARBON 4.7 5%	1/2W
				R205	1-216-647-11	METAL CHIP 680 0.50%	1/10W
				R206	1-216-073-00	METAL GLAZE 10K 5%	1/10W

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R207	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R362	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R208	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R363	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R209	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R364	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R210	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R366	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R211	1-249-393-11	CARBON	10 5% 1/4W F	R367	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R237	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R368	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R301	1-216-025-00	METAL GLAZE	100 5% 1/10W	R371	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R302	1-216-025-00	METAL GLAZE	100 5% 1/10W	R372	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R303	1-216-025-00	METAL GLAZE	100 5% 1/10W	R373	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R304	1-216-025-00	METAL GLAZE	100 5% 1/10W	R374	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R305	1-216-295-00	METAL GLAZE	0 5% 1/10W	R375	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R306	1-216-295-00	METAL GLAZE	0 5% 1/10W	R376	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R307	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R378	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R308	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R379	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R311	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R380	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R312	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R381	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R313	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R382	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R314	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R383	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R315	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R384	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R316	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R385	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R317	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R386	1-249-438-11	CARBON	56K 5% 1/4W
R318	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R387	1-216-029-00	METAL GLAZE	150 5% 1/10W
R319	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R388	1-216-033-00	METAL GLAZE	220 5% 1/10W
R320	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R389	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R321	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R390	1-249-393-11	CARBON	10 5% 1/4W F
R322	1-216-035-00	METAL GLAZE	270 5% 1/10W	R391	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R323	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R393	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R324	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R394	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R325	1-216-037-00	METAL GLAZE	330 5% 1/10W	R395	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R326	1-216-033-00	METAL GLAZE	220 5% 1/10W	R396	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R328	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R397	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R329	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R398	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R330	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R399	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R331	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R401	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R332	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R402	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R333	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R403	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R334	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R404	1-216-029-00	METAL GLAZE	150 5% 1/10W
R335	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R406	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R336	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R407	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R337	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R408	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R338	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R410	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R339	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R411	1-216-033-00	METAL GLAZE	220 5% 1/10W
R340	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R412	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R341	1-216-673-11	METAL CHIP	8.2K 0.50% 1/10W	R413	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W
R342	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R416	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R343	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R417	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W
R344	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R418	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W
R345	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R419	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R346	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R420	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R347	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R422	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R348	1-216-031-00	METAL GLAZE	180 5% 1/10W	R423	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R349	1-216-694-11	METAL CHIP	62K 0.50% 1/10W	R424	1-216-033-00	METAL GLAZE	220 5% 1/10W
R350	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R425	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R351	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R426	1-216-039-00	METAL GLAZE	390 5% 1/10W
R352	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R427	1-216-033-00	METAL GLAZE	220 5% 1/10W
R353	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R428	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R354	1-259-877-11	CARBON	1.2M 5% 1/4W	R429	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R355	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R430	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R356	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R431	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R357	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R432	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R358	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R434	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R359	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R435	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R360	1-216-039-00	METAL GLAZE	390 5% 1/10W	R436	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R361	1-216-017-00	METAL GLAZE	47 5% 1/10W				

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R437	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R504	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R438	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R505	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R439	1-216-033-00	METAL GLAZE	220 5% 1/10W	R506	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R440	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R507	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R441	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R508	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R442	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R509	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R443	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R510	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R444	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R511	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R445	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R512	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R447	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R513	1-216-295-00	METAL GLAZE	0 5% 1/10W
R448	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R514	1-216-295-00	METAL GLAZE	0 5% 1/10W
R449	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R515	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R450	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R516	1-216-103-91	METAL GLAZE	180K 5% 1/10W
R451	1-216-037-00	METAL GLAZE	330 5% 1/10W	R517	1-214-888-00	METAL	10K 1% 1/2W
R452	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R518	1-260-123-11	CARBON	100K 5% 1/2W
R453	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R519	1-216-017-00	METAL GLAZE	47 5% 1/10W
R455	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R520	1-249-423-11	CARBON	3.3K 5% 1/4W F
R456	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R521	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R457	1-216-025-00	METAL GLAZE	100 5% 1/10W	R522	1-260-111-11	CARBON	10K 5% 1/2W
R458	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R523	1-215-892-11	METAL OXIDE	1K 5% 2W F
R459	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R524	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R460	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R525	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R462	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R526	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R463	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R527	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R464	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R528	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R465	1-216-025-00	METAL GLAZE	100 5% 1/10W	R529	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R466	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R530	1-216-367-11	METAL OXIDE	0.68 5% 2W F
R467	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R531	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R468	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R532	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
R469	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R533	1-247-723-11	CARBON	6.8K 5% 1/4W F
R470	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R534	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R471	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R535	1-249-448-11	CARBON	1.2 5% 1/4W F
R472	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R536	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R473	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R537	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R474	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R539	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R475	1-216-025-00	METAL GLAZE	100 5% 1/10W	R540	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R476	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R541	1-249-383-11	CARBON	1.5 5% 1/4W F
R477	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R542	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R478	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R543	1-212-883-00	FUSIBLE	120 5% 1/4W F
R479	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R544	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R480	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R545	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R481	1-216-033-00	METAL GLAZE	220 5% 1/10W	R546	1-249-425-11	CARBON	4.7K 5% 1/4W F
R482	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R547	1-249-438-11	CARBON	56K 5% 1/4W
R483	1-216-025-00	METAL GLAZE	100 5% 1/10W	R548	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R484	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R549	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R485	1-216-033-00	METAL GLAZE	220 5% 1/10W	R550	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R486	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	R551	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R487	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R552	1-216-033-00	METAL GLAZE	220 5% 1/10W
R488	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R553	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R489	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R554	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R490	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R555	1-216-692-11	METAL CHIP	51K 0.50% 1/10W
R491	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R556	1-216-464-11	METAL OXIDE	18K 5% 2W F
R492	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R558	1-247-711-11	CARBON	680 5% 1/4W F
R493	1-216-295-00	METAL GLAZE	0 5% 1/10W	R559	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R494	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R560	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R495	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R561	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R496	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R563	1-216-017-00	METAL GLAZE	47 5% 1/10W
R497	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R564	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R498	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R565	1-216-033-00	METAL GLAZE	220 5% 1/10W
R499	1-216-033-00	METAL GLAZE	220 5% 1/10W	R566	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R500	1-216-689-11	METAL GLAZE	39K 5% 1/10W	R567	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R501	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R568	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R502	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R569	1-260-114-11	CARBON	18K 5% 1/2W
R503	1-216-677-11	METAL CHIP	12K 0.50% 1/10W				

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK
R571	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R572	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R573	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R574	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R576	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R578	1-216-693-11	METAL CHIP	56K 0.50% 1/10W
R580	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R582	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R583	1-216-039-00	METAL GLAZE	390 5% 1/10W
R584	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R585	1-216-033-00	METAL GLAZE	220 5% 1/10W
R586	1-216-686-11	METAL CHIP	30K 0.50% 1/10W
R587	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R588	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R589	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R590	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R591	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R592	1-247-688-11	CARBON	10 5% 1/4W F
R593	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R594	1-260-104-91	CARBON	2.7K 5% 1/2W
R595	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R596	1-214-754-00	METAL	11K 1% 1/4W
R597	1-249-417-11	CARBON	1K 5% 1/4W F
R598	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R599	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1101	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1102	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1103	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1104	1-216-699-11	METAL CHIP	100K 0.50% 1/10W
R1105	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1106	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1107	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1108	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1109	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1110	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1111	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1112	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1113	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1114	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1115	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1116	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R1117	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1118	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1119	1-216-694-11	METAL CHIP	62K 0.50% 1/10W
R1120	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1123	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1124	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1125	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1126	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1127	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1128	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1129	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1130	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1131	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1132	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1133	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1134	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1135	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1136	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1137	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1138	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1139	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R1140	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1141	1-216-083-00	METAL GLAZE	27K 5% 1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1142	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1143	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1144	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1145	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R1146	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1147	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1148	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1150	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1151	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1155	1-216-133-00	METAL GLAZE	3.3M 5% 1/10W
R1161	1-218-776-11	METAL CHIP	1M 0.50% 1/10W
R1162	1-218-768-11	METAL CHIP	470K 0.50% 1/10W
R1163	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1164	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1165	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1166	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1167	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1168	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1169	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1170	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1171	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1172	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1173	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1176	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1177	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1178	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1179	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1180	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1181	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1182	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1183	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1184	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1185	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1186	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1187	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1188	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1189	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1190	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1191	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1192	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W
R1193	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1194	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1195	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1196	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1197	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1198	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1301	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1302	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1303	1-216-039-00	METAL GLAZE	390 5% 1/10W
R1304	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1305	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1306	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1307	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1308	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1309	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1310	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1311	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1312	1-216-027-00	METAL GLAZE	120 5% 1/10W
R1313	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1314	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1315	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1316	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1317	1-216-041-00	METAL GLAZE	470 5% 1/10W

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1318	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R1383	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1319	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1384	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1320	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1385	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1321	1-216-649-11	METAL CHIP	820 0.50% 1/10W	R1386	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1322	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1387	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1324	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R1388	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R1325	1-216-652-11	METAL CHIP	1.1K 0.50% 1/10W	R1389	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R1326	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1390	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1327	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1391	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1328	1-216-125-00	METAL GLAZE	1.5M 5% 1/10W	R1392	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1329	1-216-103-91	METAL GLAZE	180K 5% 1/10W	R1393	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R1330	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1394	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1331	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R1395	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1332	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R1396	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1333	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1397	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1334	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R1399	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1335	1-249-401-11	CARBON	47 5% 1/4W F	R1401	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1336	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R1402	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1337	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R1403	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R1338	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R1404	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1339	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1405	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1340	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1406	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R1341	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1407	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1342	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1408	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1343	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1409	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1344	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R1410	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R1345	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1411	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1346	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R1412	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R1347	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1413	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1348	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1414	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1349	1-216-035-00	METAL GLAZE	270 5% 1/10W	R1415	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R1350	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1416	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1417	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1352	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1418	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1353	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1419	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1354	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R1420	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1355	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1421	1-216-649-11	METAL CHIP	820 0.50% 1/10W
R1356	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1422	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1357	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R1423	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1358	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1424	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1359	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R1425	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1360	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1426	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1361	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1427	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1362	1-216-676-11	METAL CHIP	11K 0.50% 1/10W	R1428	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1363	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1429	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W
R1364	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1430	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1365	1-216-131-11	METAL GLAZE	2.7M 5% 1/10W	R1431	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1432	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1367	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1433	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1368	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R1434	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1369	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R1435	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R1370	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1436	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1371	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1437	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1372	1-249-437-11	CARBON	47K 5% 1/4W	R1438	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1373	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R1439	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1374	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R1440	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1375	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1441	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1376	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R1442	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1377	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R1443	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1378	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R1444	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1379	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1445	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1380	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R1446	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1381	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R1447	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1382	1-216-073-00	METAL GLAZE	10K 5% 1/10W				

# PVM-1450QM/1454QM

## A (PVM-1454QM)

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1448	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1449	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1450	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1451	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R1452	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1453	1-216-013-00	METAL GLAZE	33 5% 1/10W
R1454	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1455	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1456	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R1457	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1458	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1459	1-216-133-00	METAL GLAZE	3.3M 5% 1/10W
R1460	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1461	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1462	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1463	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R1464	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1465	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R1466	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R1467	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1468	1-249-438-11	CARBON	56K 5% 1/4W
R1469	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1470	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1471	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1472	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1473	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1474	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R1475	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R1476	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R1477	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1478	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R1479	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1480	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1481	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R1482	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1483	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1484	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1485	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1486	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R1487	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1488	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1489	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R1490	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1491	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1492	1-216-035-00	METAL GLAZE	270 5% 1/10W
R1493	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1494	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1495	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1497	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1498	1-247-839-31	CARBON	2.2K 5% 1/4W
R1499	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1500	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R1501	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1502	1-260-105-11	CARBON	3.3K 5% 1/2W
R1503	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R1504	1-216-686-11	METAL CHIP	30K 0.50% 1/10W
R1505	1-247-688-11	CARBON	10 5% 1/4W F
R1506	1-216-037-00	METAL GLAZE	330 5% 1/10W
R1507	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1508	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1509	1-249-439-11	CARBON	68K 5% 1/4W
R1510	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1511	1-216-360-11	METAL OXIDE	8.2 5% 1W F
R1512	1-216-647-11	METAL CHIP	680 0.50% 1/10W

• The components identified by **X** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark **Δ** are critical for safety. Replace only with part number specified.


REF. NO.	PART NO.	DESCRIPTION	REMARK
R1513	1-247-752-11	CARBON	1K 5% 1/2W F
R1514	1-247-711-11	CARBON	680 5% 1/4W F
R1515	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R1516	1-247-883-00	CARBON	150K 5% 1/4W
R1518	1-215-867-00	METAL OXIDE	470 5% 1W F
R1519	1-216-355-11	METAL OXIDE	3.3 5% 1W F
R1520	1-216-007-00	METAL GLAZE	18 5% 1/10W
R1521	1-216-029-00	METAL GLAZE	150 5% 1/10W
R1522	1-249-400-11	CARBON	39 5% 1/4W F
R1523	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R1524	1-216-427-00	METAL OXIDE	120 5% 1W F
R1525	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1526	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1527	1-249-413-11	CARBON	470 5% 1/4W F
R1528	1-215-869-11	METAL OXIDE	1K 5% 1W F
R1529	1-202-829-11	SOLID	8.2K 20% 1/2W
R1530	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R1531	1-247-697-11	CARBON	56 5% 1/4W F
R1532	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1533	1-249-414-11	CARBON	560 5% 1/4W F
R1534	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R1535Δ			
R1536Δ			
R1537	1-249-389-11	CARBON	4.7 5% 1/4W F
R1538	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1539	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R1540	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R1541	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1542	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R1543	1-216-027-00	METAL GLAZE	120 5% 1/10W
R1544	1-216-117-00	METAL GLAZE	680K 5% 1/10W
R1545	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R1547	1-216-393-00	METAL OXIDE	2.2 5% 3W F
R1548	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1549	1-260-094-11	CARBON	390 5% 1/2W
R1550	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R1551	1-249-393-11	CARBON	10 5% 1/4W F
R1552	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1553	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1554	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R1555	1-216-295-00	METAL GLAZE	0 5% 1/10W
R1556	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R1557	1-218-760-11	METAL CHIP	220K 0.50% 1/10W
R1558	1-249-393-11	CARBON	10 5% 1/4W F
R1559	1-249-393-11	CARBON	10 5% 1/4W F
R1560	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1561	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1562	1-214-964-00	METAL	1M 1% 1/4W
R1563	1-214-964-00	METAL	1M 1% 1/4W
R1564	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R1567	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R1568	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1569	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1570	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1571	1-216-103-91	METAL GLAZE	180K 5% 1/10W
R1572	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R1573	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1574	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1575	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1576	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1577	1-216-025-00	METAL GLAZE	100 5% 1/10W
R1578	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1579	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2300	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2301	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W

## A (PVM-1454QM)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2302	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R2369	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2303	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R2370	1-216-686-11	METAL CHIP	30K 0.50% 1/10W
R2304	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R2371	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2305	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R2372	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2306	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R2374	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2307	1-216-033-00	METAL GLAZE	220 5% 1/10W	R2375	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2308	1-216-103-91	METAL GLAZE	180K 5% 1/10W	R2376	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2309	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2377	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2310	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R2378	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2311	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R2379	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2312	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R2380	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2313	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2381	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2314	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R2382	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R2315	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R2383	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2316	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R2384	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2317	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2385	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2318	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R2386	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2319	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R2387	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2320	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R2388	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2321	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R2389	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2322	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R2390	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R2323	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R2391	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R2324	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R2392	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2325	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R2393	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2326	1-216-041-00	METAL GLAZE	470 5% 1/10W	R2394	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2327	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R2396	1-216-041-00	METAL GLAZE	470 5% 1/10W
R2328	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2397	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2329	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R2398	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R2330	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2399	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2331	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R2501	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2332	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R2502	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2333	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R2551	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R2334	1-216-041-00	METAL GLAZE	470 5% 1/10W	R2552	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R2335	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R2553	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2336	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R2555	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R2337	1-216-037-00	METAL GLAZE	330 5% 1/10W	R2556	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R2338	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R2557	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R2339	1-216-037-00	METAL GLAZE	330 5% 1/10W	R2558	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R2340	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R2559	1-216-039-00	METAL GLAZE	390 5% 1/10W
R2341	1-216-037-00	METAL GLAZE	330 5% 1/10W	R2560	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2342	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R2561	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2343	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R2562	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2344	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R2563	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R2345	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	R3301	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2346	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3302	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2347	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3303	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2348	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3304	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2349	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R3305	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R2350	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3306	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R2351	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3307	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R2352	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R3308	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2353	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3309	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2354	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3310	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2356	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R3311	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R2357	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R3312	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R2358	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3317	1-216-111-00	METAL GLAZE	390K 5% 1/10W
R2361	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R3320	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R2362	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3333	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2363	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R3334	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2364	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3335	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R2365	1-216-687-11	METAL CHIP	33K 0.50% 1/10W	R3337	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R2366	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3338	1-218-759-11	METAL CHIP	200K 0.50% 1/10W
R2367	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R3339	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R2368	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				

# PVM-1450QM/1454QM

## A (PVM-1454QM) G

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3340	1-216-099-00	METAL GLAZE	120K 5% 1/10W	<THERMISTOR>			
R3341	1-216-089-91	METAL GLAZE	47K 5% 1/10W	TH500	1-807-970-11	THERMISTOR	
R3342	1-216-111-00	METAL GLAZE	390K 5% 1/10W	<CRYSTAL>			
R3343	1-216-089-91	METAL GLAZE	47K 5% 1/10W	X101	1-579-175-11	VIBRATOR, CERAMIC	
R3344	1-216-081-00	METAL GLAZE	22K 5% 1/10W	X300	1-577-259-11	VIBRATOR, CRYSTAL	
R3345	1-216-033-00	METAL GLAZE	220 5% 1/10W	X301	1-527-722-00	OSCILLATOR, CRYSTAL	
R3346	1-216-025-00	METAL GLAZE	100 5% 1/10W	*****			
R3347	1-216-025-00	METAL GLAZE	100 5% 1/10W	*A-1316-174-A	G BOARD, COMPLETE		
R3348	1-216-025-00	METAL GLAZE	100 5% 1/10W	*****			
R3349	1-216-025-00	METAL GLAZE	100 5% 1/10W	1-533-189-11	HOLDER, FUSE		
R3350	1-216-113-00	METAL GLAZE	470K 5% 1/10W	4-363-414-00	SPACER, MICA		
R3351	1-216-119-00	METAL GLAZE	820K 5% 1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)		
R3355	1-216-089-91	METAL GLAZE	47K 5% 1/10W	<CAPACITOR>			
R3356	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	C601	1-161-953-71	CERAMIC	0.0047MF 20% 400V
R3357	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	C602	1-161-953-71	CERAMIC	0.0047MF 20% 400V
R3358	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	C603	1-161-953-71	CERAMIC	0.0047MF 20% 400V
R3359	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C604	1-161-953-71	CERAMIC	0.0047MF 20% 400V
R3360	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C605	1-104-706-51	FILM	0.22MF 20% 250V
R3361	1-216-089-91	METAL GLAZE	47K 5% 1/10W	C606	1-124-907-11	ELECT	10MF 20% 50V
R3362	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C607	1-124-798-11	ELECT	1MF 20% 160V
R3363	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C608	1-129-765-00	FILM	0.047MF 10% 200V
R3364	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C609	1-124-126-00	ELECT	47MF 20% 10V
R3365	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C610	1-124-902-00	ELECT	0.47MF 20% 50V
R3376	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C611	1-130-729-00	FILM	0.0027MF 5% 50V
R3377	1-216-107-00	METAL GLAZE	270K 5% 1/10W	C612	1-107-722-11	ELECT	470MF 20% 400V
R3378	1-216-115-00	METAL GLAZE	560K 5% 1/10W	C613	1-104-706-51	FILM	0.22MF 20% 250V
R3381	1-216-041-00	METAL GLAZE	470 5% 1/10W	C614	1-102-978-00	CERAMIC	220PF 5% 50V
R3382	1-216-647-11	METAL CHIP	680 0.50% 1/10W	C615	1-104-706-51	FILM	0.22MF 20% 250V
R3383	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	C616	1-162-318-11	CERAMIC	0.001MF 10% 500V
R3384	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	C618	1-124-907-11	ELECT	10MF 20% 50V
R3385	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C619	1-162-116-00	CERAMIC	680PF 10% 2KV
R3386	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C620	1-162-116-00	CERAMIC	680PF 10% 2KV
R3390	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C621	1-136-153-00	FILM	0.01MF 5% 50V
R3394	1-216-089-91	METAL GLAZE	47K 5% 1/10W	C622	1-126-773-11	ELECT	47MF 20% 250V
R3395	1-249-417-11	CARBON	1K 5% 1/4W	C623	1-162-318-11	CERAMIC	0.001MF 10% 500V
R3396	1-216-041-00	METAL GLAZE	470 5% 1/10W	C624	1-124-477-11	ELECT	47MF 20% 16V
R3397	1-216-041-00	METAL GLAZE	470 5% 1/10W	C625	1-161-973-00	CERAMIC	220PF 10% 400V
R3398	1-216-101-00	METAL GLAZE	150K 5% 1/10W	C627	1-136-066-00	FILM	0.003MF 3% 2KV
R4401	1-216-085-00	METAL GLAZE	33K 5% 1/10W	C628	1-136-067-00	FILM	0.0036MF 3% 2KV
R4402	1-216-113-00	METAL GLAZE	470K 5% 1/10W	C629	1-124-887-00	CERAMIC	0.001MF 10% 3KV
R4404	1-216-073-00	METAL GLAZE	10K 5% 1/10W	C630	1-102-973-00	CERAMIC	100PF 5% 50V
R4405	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	C631	1-161-973-00	CERAMIC	220PF 10% 400V
R4407	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	C632	1-162-599-12	CERAMIC	0.0047MF 20% 400V
R4408	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C633	1-162-599-12	CERAMIC	0.0047MF 20% 400V
R4409	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C634	1-102-125-00	CERAMIC	0.0047MF 10% 50V
R4410	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	C635	1-124-903-11	ELECT	1MF 20% 50V
R4411	1-216-113-00	METAL GLAZE	470K 5% 1/10W	C636	1-126-801-11	ELECT	1MF 20% 50V
R4412	1-216-113-00	METAL GLAZE	470K 5% 1/10W	C637	1-102-030-00	CERAMIC	330PF 10% 500V
R4413	1-216-295-00	METAL GLAZE	0 5% 1/10W	C638	1-102-030-00	CERAMIC	330PF 10% 500V
R4414	1-216-295-00	METAL GLAZE	0 5% 1/10W	C639	1-104-783-51	ELECT	1000MF 20% 25V
R4415	1-216-295-00	METAL GLAZE	0 5% 1/10W	C640	1-128-386-11	ELECT	1000MF 20% 25V
R4416	1-216-295-00	METAL GLAZE	0 5% 1/10W	C641	1-106-343-00	MYLAR	0.001MF 10% 100V
<VARIABLE RESISTOR>				C642	1-102-030-00	CERAMIC	330PF 10% 500V
RV501	1-223-102-00	RES, ADJ, WIREWOUND 120		C643	1-104-884-11	ELECT	470MF 20% 50V
<TRANSFORMER>				C644	1-102-030-00	CERAMIC	330PF 10% 500V
T300	1-406-781-11	COIL		C645	1-162-131-11	CERAMIC	220PF 10% 2KV
T500	1-426-668-11	TRANSFORMER, FERRITE (HOT)		C646	1-102-973-00	CERAMIC	100PF 5% 50V
T501	1-453-163-11	TRANSFORMER ASSY, FLYBACK		C647	1-126-385-11	ELECT	390MF 20% 16V

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

PVM-1450QM/1454QM

G

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C649	1-126-803-11	ELECT	47MF	20%	16V		
C650	1-126-103-11	ELECT	470MF	20%	16V		
C651	1-126-101-11	ELECT	100MF	20%	16V		
C652	1-124-667-11	ELECT	10MF	20%	50V		
C653	1-136-169-00	FILM	0.22MF	5%	50V		
C654	$\Delta$ 1-161-953-71	CERAMIC	0.0047MF	20%	400V		
C655	$\Delta$ 1-161-953-71	CERAMIC	0.0047MF	20%	400V		
C656	$\Delta$ 1-161-953-71	CERAMIC	0.0047MF	20%	400V		
C657	1-102-965-00	CERAMIC	39PF	5%	50V		
C658	$\Delta$ 1-161-953-71	CERAMIC	0.0047MF	20%	400V		
C659	1-102-123-00	CERAMIC	0.0033MF	10%	50V		
C660	1-124-791-11	ELECT	1MF	20%	100V		
C661	1-130-467-00	MYLAR	470PF	5%	50V		
<CONNECTOR>							
CN601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P					
CN602	*1-695-561-11	PIN, CONNECTOR (PC BOARD) 7P					
CN603	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P					
CN605	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P					
CN606	*1-564-508-11	PLUG, CONNECTOR 5P					
CN609	*1-506-371-00	PIN, CONNECTOR 2P					
<DIODE>							
D601	$\Delta$ 8-719-510-53	DIODE D4SB60L					
D602	8-719-300-33	DIODE RU-3AM					
D603	8-719-110-90	DIODE RD39ESB4					
D604	8-719-110-90	DIODE RD39ESB4					
D605	8-719-109-97	DIODE RD6.8ESB2					
D606	8-719-118-34	DIODE RD110EB					
D607	8-719-110-41	DIODE RD15ESB2					
D608	8-719-300-33	DIODE RU-3AM					
D610	8-719-200-02	DIODE 10E-2					
D611	8-719-300-33	DIODE RU-3AM					
D615	8-719-300-33	DIODE RU-3AM					
D616	8-719-911-19	DIODE ISS119					
D617	8-719-911-19	DIODE ISS119					
D618	8-719-908-03	DIODE GP08D					
D619	8-719-110-41	DIODE RD15ESB2					
D620	8-719-045-48	DIODE FML-G12S					
D621	8-719-911-19	DIODE ISS119					
D622	8-719-979-58	DIODE EGP10D					
D623	8-719-045-48	DIODE FML G12S					
D625	8-719-016-42	DIODE MC932					
D626	8-719-109-71	DIODE RD3.9ESB1					
D628	8-719-979-50	DIODE EGP30D					
D629	8-719-979-85	DIODE EGP20G					
D630	8-719-911-19	DIODE ISS119					
D631	8-719-911-19	DIODE ISS119					
<FERRITE BEAD>							
FB601	$\Delta$ 1-543-190-11	BEAD, FERRITE					
FB602	$\Delta$ 1-543-190-11	BEAD, FERRITE					
FB603	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
FB604	$\Delta$ 1-543-190-11	BEAD, FERRITE					
FB605	$\Delta$ 1-543-190-11	BEAD, FERRITE					
<IC>							
IC601	8-759-100-75	IC UPC1394C					
IC602	8-759-255-41	IC MM1108XS					
IC603	8-759-927-49	IC IR9431					
IC604	8-759-924-12	IC LM7805CT					
<COIL>							
L603	1-410-645-31	INDUCTOR	100UH				
L604	1-407-365-00	COIL, CHOKE					
L605	1-410-645-31	INDUCTOR	100UH				
<PHOTO COUPLER>							
PH602	8-749-923-50	PHOTO COUPLER PC111YS					
PH606	8-749-923-50	PHOTO COUPLER PC111YS					
<TRANSISTOR>							
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q602	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q603	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q605	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q606	8-729-802-14	TRANSISTOR 2SC3460					
Q607	8-729-140-96	TRANSISTOR 2SD774-34					
Q609	8-729-905-67	TRANSISTOR 2SD1944-K					
Q610	8-729-209-03	TRANSISTOR 2SC2551-RO					
Q611	8-729-200-17	TRANSISTOR 2SA1091-0					
<RESISTOR>							
R601	$\Delta$ 1-260-123-91	CARBON	100K	5%	1/2W		
R602	$\Delta$ 1-260-123-91	CARBON	100K	5%	1/2W		
R603	1-249-427-11	CARBON	6.8K	5%	1/4W		
R604	$\Delta$ 1-214-937-55	METAL	1M	1%	1/2W		
R605	1-249-434-11	CARBON	27K	5%	1/4W		
R606	1-260-111-11	CARBON	10K	5%	1/2W		
R607	1-205-943-11	WIREWOUND	1	5%	20W		
R608	1-260-127-11	CARBON	220K	5%	1/2W		
R609	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F	
R610	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F	
R611	1-215-457-00	METAL	33K	1%	1/4W		
R612	1-202-719-00	SOLID	1M	20%	1/2W		
R613	1-202-720-00	SOLID	1.2M	20%	1/2W		
R614	1-249-423-11	CARBON	3.3K	5%	1/4W		
R615	1-260-324-11	CARBON	470	5%	1/2W		
R616	1-247-710-11	CARBON	560	5%	1/4W	F	
R617	1-214-716-00	METAL	300	1%	1/4W		
R618	1-249-496-11	CARBON	100K	5%	1/2W	F	
R619	1-216-444-11	METAL OXIDE	82K	5%	1W	F	
R620	1-216-444-11	METAL OXIDE	82K	5%	1W	F	
R621	1-249-427-11	CARBON	6.8K	5%	1/4W		
R622	1-217-190-21	WIREWOUND	0.15	10%	2W	F	
R623	1-249-393-11	CARBON	10	5%	1/4W		
R624	1-247-887-00	CARBON	220K	5%	1/4W		
R625	1-247-887-00	CARBON	220K	5%	1/4W		
R626	1-249-436-11	CARBON	39K	5%	1/4W		
R627	1-249-429-11	CARBON	10K	5%	1/4W		
R628	1-214-777-00	METAL	100K	1%	1/4W		
R629	1-247-891-00	CARBON	330K	5%	1/4W		
R630	1-249-424-11	CARBON	3.9K	5%	1/4W		
R631	1-249-429-11	CARBON	10K	5%	1/4W		
R632	1-247-885-00	CARBON	180K	5%	1/4W		
R633	1-249-412-11	CARBON	390	5%	1/4W		
R634	1-211-867-11	WIREWOUND	180	5%	10W		
R635	1-249-441-11	CARBON	100K	5%	1/4W		
R636	1-247-753-11	CARBON	1.2K	5%	1/2W	F	
R637	1-216-491-11	METAL OXIDE	56K	5%	3W	F	
R638	1-216-491-11	METAL OXIDE	56K	5%	3W	F	

G	C
---	---

• \* : Selected to yield optimum performance.

<RELAY>

— 122 —

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

# PVM-1450QM/1454QM



REF. NO. PART NO. DESCRIPTION

D715 8-719-901-83 DIODE 1SS83  
D716 8-719-901-83 DIODE 1SS83  
D717 8-719-901-83 DIODE 1SS83

<JACK>

J701  $\Delta$  1-526-819-11 SOCKET, PICTURE TUBE

<COIL>

L701 1-410-667-31 INDUCTOR 22UH  
L705 1-412-532-11 INDUCTOR 39UH

<TRANSISTOR>

Q701 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q702 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q703 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q704 8-729-200-17 TRANSISTOR 2SA1091-0  
Q705 8-729-200-17 TRANSISTOR 2SA1091-0

Q706 8-729-200-17 TRANSISTOR 2SA1091-0  
Q707 8-729-326-11 TRANSISTOR 2SC2611  
Q708 8-729-326-11 TRANSISTOR 2SC2611  
Q709 8-729-326-11 TRANSISTOR 2SC2611  
Q710 8-729-200-17 TRANSISTOR 2SA1091-0

Q711 8-729-200-17 TRANSISTOR 2SA1091-0  
Q712 8-729-200-17 TRANSISTOR 2SA1091-0  
Q713 8-729-255-12 TRANSISTOR 2SC2551-0  
Q714 8-729-255-12 TRANSISTOR 2SC2551-0  
Q715 8-729-119-78 TRANSISTOR 2SC2785-HFE

Q716 8-729-119-78 TRANSISTOR 2SC2785-HFE  
Q717 8-729-119-78 TRANSISTOR 2SC2785-HFE

<RESISTOR>

R702 1-247-903-00 CARBON 1M 5% 1/4W  
R704 1-215-405-00 METAL 220 1% 1/4W  
R705 1-215-405-00 METAL 220 1% 1/4W  
R706 1-215-405-00 METAL 220 1% 1/4W  
R707 1-249-431-11 CARBON 15K 5% 1/4W

R708 1-249-431-11 CARBON 15K 5% 1/4W  
R709 1-249-431-11 CARBON 15K 5% 1/4W  
R710 1-215-391-00 METAL 56 1% 1/4W  
R711 1-215-394-00 METAL 75 1% 1/4W  
R712 1-215-392-00 METAL 62 1% 1/4W

R715 1-202-818-00 SOLID 1K 20% 1/2W  
R716 1-216-486-00 METAL OXIDE 8.2K 5% 3W F  
R717 1-202-818-00 SOLID 1K 20% 1/2W  
R718 1-216-486-00 METAL OXIDE 8.2K 5% 3W F  
R719 1-202-818-00 SOLID 1K 20% 1/2W

R720 1-216-486-00 METAL OXIDE 8.2K 5% 3W F  
R722 1-202-883-11 SOLID 680K 20% 1/2W  
R723 1-202-838-00 SOLID 100K 20% 1/2W  
R724 1-202-842-11 SOLID 220K 20% 1/2W  
R725 1-202-719-00 SOLID 1M 20% 1/2W

R731 1-249-409-11 CARBON 220 5% 1/4W  
R732 1-249-409-11 CARBON 220 5% 1/4W  
R733 1-249-409-11 CARBON 220 5% 1/4W  
R734 1-249-409-11 CARBON 220 5% 1/4W F  
R735 1-249-409-11 CARBON 220 5% 1/4W F

R736 1-249-409-11 CARBON 220 5% 1/4W F  
R737 1-247-807-31 CARBON 100 5% 1/4W  
R738 1-247-807-31 CARBON 100 5% 1/4W  
R739 1-247-807-31 CARBON 100 5% 1/4W

REMARK REF. NO. PART NO. DESCRIPTION

R740 1-249-429-11 CARBON 10K 5% 1/4W F  
R741 1-249-429-11 CARBON 10K 5% 1/4W F  
R742 1-249-429-11 CARBON 10K 5% 1/4W F  
R744 1-249-429-11 CARBON 10K 5% 1/4W  
R745 1-249-429-11 CARBON 10K 5% 1/4W  
R746 1-215-879-11 METAL OXIDE 47K 5% 1W F

R747 1-247-725-11 CARBON 10K 5% 1/4W F  
R748 1-247-713-11 CARBON 1K 5% 1/4W F  
R749 1-215-902-11 METAL OXIDE 47K 5% 2W F  
R750 1-249-400-11 CARBON 39 5% 1/4W F  
R751 1-247-887-00 CARBON 220K 5% 1/4W

R752 1-247-887-00 CARBON 220K 5% 1/4W  
R753 1-247-887-00 CARBON 220K 5% 1/4W

<VARIABLE RESISTOR>

RV707 1-230-641-11 RES. ADJ. METAL GLAZE 2.2M  
RV708  $\Delta$  1-230-798-21 RES. ADJ. METAL GLAZE 90M  
RV709 1-230-641-11 RES. ADJ. METAL GLAZE 2.2M

\*\*\*\*\*

\*A-1371-971-A H BOARD, COMPLETE (PVM-1454QM)

\*A-1371-972-A H BOARD, COMPLETE (PVM-1450QM)

\*4-348-208-00 HOLDER, LED

<CONNECTOR>

CN105 \*1-564-527-11 PLUG, CONNECTOR 12P  
CN106 \*1-564-526-11 PLUG, CONNECTOR 11P

<DIODE>

D2102 8-719-920-05 DIODE SLP281C-50  
D2103 8-719-812-32 DIODE TLY123 (PVM-1454QM)  
D2104 8-719-901-33 DIODE 1SS133 (PVM-1454QM)

<RESISTOR>

R2101 1-249-419-11 CARBON 1.5K 5% 1/4W  
R2107 1-249-430-11 CARBON 12K 5% 1/4W  
R2136 1-249-414-11 CARBON 560 5% 1/4W  
(PVM-1454QM)  
R2137 1-249-414-11 CARBON 560 5% 1/4W  
(PVM-1454QM)

R2138 1-249-414-11 CARBON 560 5% 1/4W  
(PVM-1454QM)  
R2139 1-249-414-11 CARBON 560 5% 1/4W  
R2140 1-249-414-11 CARBON 560 5% 1/4W  
R2141 1-249-414-11 CARBON 560 5% 1/4W  
(PVM-1454QM)

R2142 1-249-414-11 CARBON 560 5% 1/4W  
R2143 1-249-414-11 CARBON 560 5% 1/4W  
R2144 1-249-414-11 CARBON 560 5% 1/4W  
R2145 1-249-414-11 CARBON 560 5% 1/4W  
R2147 1-215-427-00 METAL 1.8K 1% 1/4W  
(PVM-1454QM)

R2148 1-215-419-00 METAL 820 1% 1/4W  
(PVM-1454QM)

R2149 1-215-414-00 METAL 510 1% 1/4W  
(PVM-1454QM)

R2150 1-215-409-00 METAL 330 1% 1/4W



The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2151	1-215-407-00	METAL 270 1% 1/4W	
R2152	1-215-404-00	METAL 200 1% 1/4W	
R2153	1-215-401-11	METAL 150 1% 1/4W	
R2154	1-215-399-00	METAL 120 1% 1/4W	
R2155	1-215-397-00	METAL 100 1% 1/4W	
R2156	1-215-421-00	METAL 1K 1% 1/4W	
R2157	1-215-416-00	METAL 620 1% 1/4W	
R2158	1-215-410-00	METAL 360 1% 1/4W	
R2159	1-215-405-00	METAL 220 1% 1/4W	
R2160	1-215-421-00	METAL 1K 1% 1/4W	

## &lt;VARIABLE RESISTOR&gt;

RV2101	1-241-846-11	RES, VAR, CARBON 20K
RV2103	1-241-845-11	RES, VAR, CARBON 20K
RV2105	1-241-845-11	RES, VAR, CARBON 20K
RV2109	1-241-845-11	RES, VAR, CARBON 20K
RV2113	1-241-845-11	RES, VAR, CARBON 20K

RV2117	1-241-846-11	RES, VAR, CARBON 20K
--------	--------------	----------------------

## &lt;SWITCH&gt;

S2101	1-570-101-41	SWITCH, KEY BOARD
S2102	1-570-101-41	SWITCH, KEY BOARD
S2103	1-570-101-41	SWITCH, KEY BOARD
S2104	1-570-101-41	SWITCH, KEY BOARD
S2105	1-570-101-41	SWITCH, KEY BOARD (PVM-1454QM)

S2106	1-570-969-11	SWITCH, KEY BOARD
S2107	1-570-969-11	SWITCH, KEY BOARD
S2108	1-570-101-41	SWITCH, KEY BOARD
S2109	1-570-101-41	SWITCH, KEY BOARD
S2110	1-570-101-41	SWITCH, KEY BOARD (PVM-1454QM)

S2111	1-570-101-41	SWITCH, KEY BOARD (PVM-1454QM)
S2112	1-570-101-41	SWITCH, KEY BOARD (PVM-1454QM)
S2113	1-570-969-11	SWITCH, KEY BOARD
S2114	1-570-969-11	SWITCH, KEY BOARD

\*A-1388-166-A J BOARD, COMPLETE  
\*\*\*\*\*

## &lt;CONNECTOR&gt;

CN608	*1-695-561-11	PIN, CONNECTOR (PC BOARD) 7P
-------	---------------	------------------------------

## &lt;SWITCH&gt;

S601	$\Delta$ 1-692-921-11	SWITCH, PUSH (A.C. POWER)
------	-----------------------	---------------------------

\*A-1390-390-A X BOARD, COMPLETE (PVM-1454QM)  
\*\*\*\*\*

## &lt;CONNECTOR&gt;

CN108	*1-564-518-11	PLUG, CONNECTOR 3P
-------	---------------	--------------------

## &lt;DIODE&gt;

D001	8-719-023-78	DIODE SEL3810DLC05
D002	8-719-023-78	DIODE SEL3810DLC05
D003	8-719-023-78	DIODE SEL3810DLC05
D004	8-719-023-78	DIODE SEL3810DLC05

REF.NO.	PART NO.	DESCRIPTION	REMARK
---------	----------	-------------	--------

MISCELLANEOUS  
\*\*\*\*\*

$\Delta$ 1-426-442-21	COIL, DEMAGNETIZATION
$\Delta$ 1-451-329-11	DEFLECTION YOKE (Y14FZA)
1-537-735-11	TERMINAL BOARD ASSY, I/O (A) (PVM-1454QM)
1-537-735-21	TERMINAL BOARD ASSY, I/O (B) (PVM-1450QM)
1-544-063-12	SPEAKER

$\Delta$ 1-576-231-11	FUSE (H.B.C.) (40.A/250V)
V901 $\Delta$ 8-734-622-05	PICTURE TUBE (M34KBE21X) (PVM-1454QM)
$\Delta$ 8-736-255-05	PICTURE TUBE (A34JHS12X) (PVM-1450QM)

ACCESSORIES AND PACKING MATERIALS  
\*\*\*\*\*

$\Delta$ 1-590-151-11	CORD SET, POWER (10.0A/250V)
1-765-268-11	CORD, CONNECTION (PVM-1454QM)
3-170-078-01	HOLDER (B), PLUG
3-758-528-41	MANUAL, INSTRUCTION (PVM-1450QM)
3-758-531-41	MANUAL, INSTRUCTION (PVM-1454QM)

*4-043-762-01	CUSHION (UPPER) (ASSY)
*4-043-763-01	CUSHION (LOWER) (ASSY)
4-044-040-01	LABEL, TALLY (PVM-1454QM)
*4-044-450-01	INDIVIDUAL CARTON (PVM-1454QM)
*4-044-451-01	INDIVIDUAL CARTON (PVM-1450QM)

*4-381-155-01	BAG, PROTECTION
---------------	-----------------

# PVM-1450QM/1454QM

---

## **SONY** **SERVICE MANUAL**

### *AEP Model*

*PVM-1450QM*

*Serial No. 2,004,951 and Higher*

*Chassis No. SCC-G62C-A*

*PVM-1454QM*

*Serial No. 2,004,901 and Higher*

*Chassis No. SCC-G62B-A*

## **SUPPLEMENT-1**

File this supplement with the service manual.

### **• INTRODUCTION**

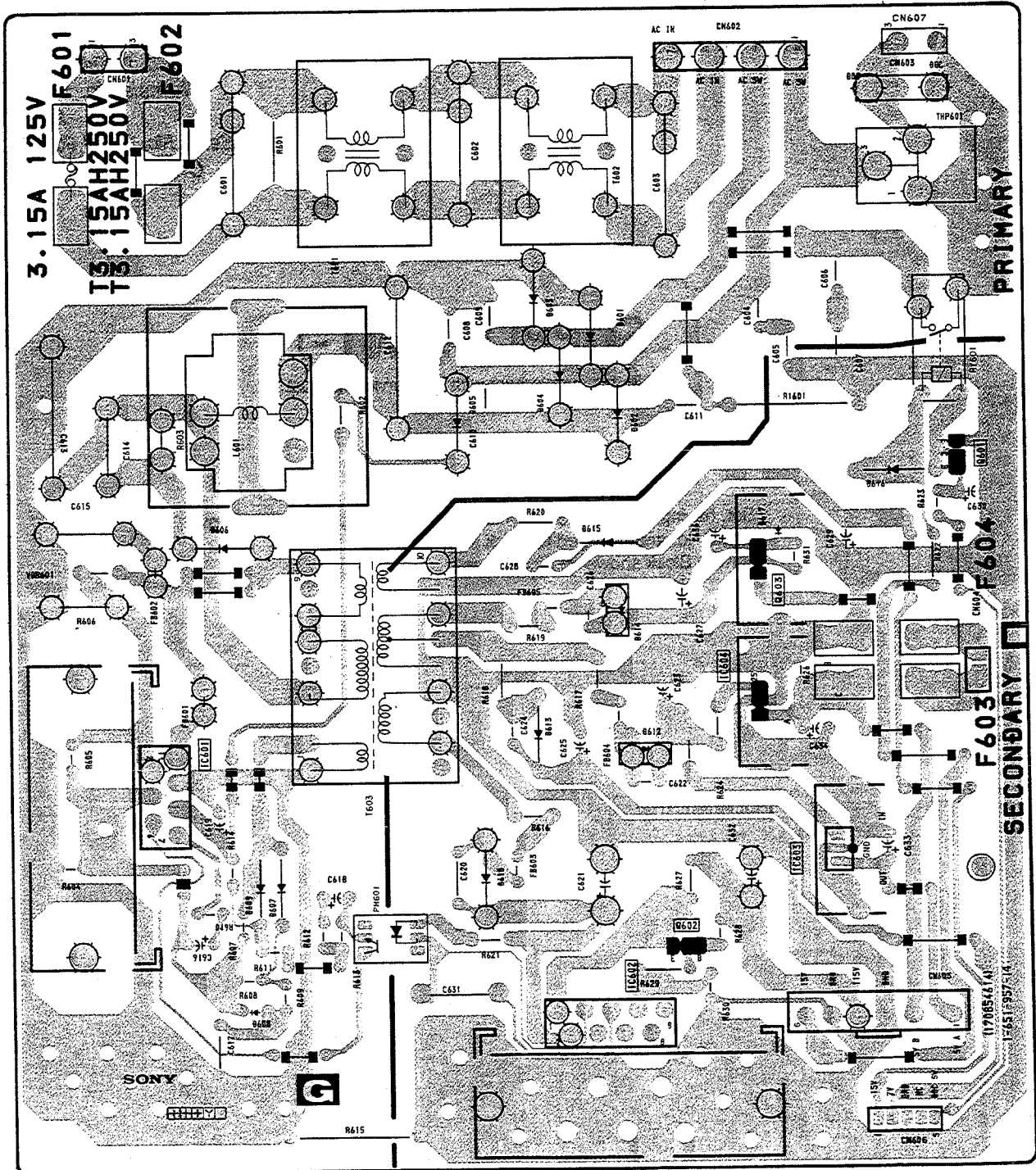
Set, having CE mark (Safety mark), have been applied to the above  
Serial No. and changed G Block.  
New G Block shows on next pages.



**G**

[POWER SUPPLY]

- G BOARD -



The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**G**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1316-213-A	G BOARD, COMPLETE (PVM-1351Q) ***** (PVM-1354Q) (PVM-1954Q) (PVM-1454PM) (PVM-1454QM) (PVM-2054QM)		D606	8-719-300-33	DIODE RU-3AM	
	* A-1316-214-A	G BOARD, COMPLETE (PVM-1350) ***** (PVM-1450QM)		D607	8-719-300-33	DIODE RU-3AM	
<CAPACITOR>				D608	8-719-911-19	DIODE 1SS119-25	
C602	A 1-136-360-51	FILM 0.22MF 20% 250V		D609	8-719-300-33	DIODE RU-3AM	
C603	A 1-136-360-51	FILM 0.22MF 20% 250V		D610	8-719-300-33	DIODE RU-3AM	
C604	A 1-161-741-21	CERAMIC 0.001MF 10% 400V		D612	8-719-045-48	DIODE FML-G12S	
C605	A 1-161-741-21	CERAMIC 0.001MF 10% 400V		D613	8-719-971-65	DIODE RGP15J-6040	
C606	A 1-161-741-21	CERAMIC 0.001MF 10% 400V		D614	8-719-045-48	DIODE FML-G12S	
C607	A 1-161-741-21	CERAMIC 0.001MF 10% 400V		D615	8-719-971-65	DIODE RGP15J-6040	
C608	A 1-161-953-71	CERAMIC 0.0047MF 20% 400V		D616	8-719-300-33	DIODE RU-3AM	
C609	A 1-161-953-71	CERAMIC 0.0047MF 20% 400V		D617	8-719-110-46	DIODE RD16ESB3	
C610	A 1-161-953-71	CERAMIC 0.0047MF 20% 400V		<FUSE>			
C611	A 1-161-953-71	CERAMIC 0.0047MF 20% 400V		F603	A 1-532-742-11	FUSE, GLASS TUBE 1.6A/125V	
C612	A 1-137-484-61	FILM 0.47MF 10% 630V			1-533-189-11	HOLDER, FUSE	
C613	1-137-484-11	FILM 0.47MF 10% 630V		F604	A 1-532-742-11	FUSE, GLASS TUBE 1.6A/125V	
C614	1-129-720-00	FILM 0.033MF 10% 630V			1-533-189-11	HOLDER, FUSE	
C615	1-136-619-11	FILM 0.0016MF 3% 2KV		<FERRITE BEAD>			
C616	1-124-910-11	ELECT 47MF 20% 35V		FB601	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C617	1-136-557-11	FILM 0.0033MF 10% 630V		FB602	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C618	1-126-096-11	ELECT 10MF 20% 25V		FB603	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C619	1-124-911-11	ELECT 220MF 20% 50V		FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C620	1-161-754-00	CERAMIC 0.001MF 10% 2KV		FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
C621	1-125-494-11	ELECT (BLOCK) 560MF 20% 160V		<IC>			
C622	1-102-038-00	CERAMIC 0.001MF 500V		IC601	8-749-924-69	IC STR-M6523	
C623	1-126-944-11	ELECT 3300MF 20% 25V			4-382-854-11	SCREW (M3X10), P, SW (+); IC601	
C624	1-102-038-00	CERAMIC 0.001MF 500V		IC602	8-749-010-47	IC STR-S3115	
C625	1-124-557-11	ELECT 1000MF 20% 25V			4-382-854-11	SCREW (M3X10), P, SW (+); IC602	
C626	1-102-038-00	CERAMIC 0.001MF 500V		IC603	8-759-701-56	IC NJM78M05FA	
C627	1-124-922-11	ELECT 1000MF 20% 50V			4-382-854-11	SCREW (M3X10), P, SW (+); IC603	
C628	1-102-038-00	CERAMIC 0.001MF 500V		IC604	8-759-231-53	IC TA7805S	
C629	1-124-922-11	ELECT 1000MF 20% 50V			4-382-854-11	SCREW (M3X10), P, SW (+); IC604	
C630	1-124-907-11	ELECT 10MF 20% 50V		<JUMPER>			
C631	1-136-853-11	FILM 0.56MF 5% 200V		JW609	1-410-679-31	INDUCTOR 270UH (PVM-1353MD)	
C632	1-124-562-11	ELECT 47MF 20% 160V		<COIL>			
C633	1-124-122-11	ELECT 100MF 20% 50V		L601	1-411-215-11	COIL, CHOKE 200UH	
C634	1-124-911-11	ELECT 220MF 20% 50V		L1601	1-410-679-31	INDUCTOR 270UH (PVM-1453MD)	
C636	1-124-910-11	ELECT 47MF 20% 50V		L1602	1-421-421-00	COIL, CHOKE	
C1602	1-137-484-11	FILM 0.47MF 10% 630V		<PHOTO COUPLER>			
<CONNECTOR>				PH601	8-749-923-50	PHOTO COUPLER PC1111YS	
CN601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P		<TRANSISTOR>			
CN602	*1-695-561-11	PIN, CONNECTOR (PC BOARD) 7P		Q601	8-729-140-96	TRANSISTOR 2SD774-34	
CN603	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		Q603	8-729-303-61	TRANSISTOR 2SC3851-G	
CN604	*1-564-506-11	PLUG, CONNECTOR 3P			4-382-854-11	SCREW (M3X10), P, SW (+); Q603	
CN605	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P		<RESISTOR>			
CN606	*1-564-508-11	PLUG, CONNECTOR 5P		R601	A 1-202-885-91	SOLID 1M 20% 1/2W	
<DIODE>				R602	1-216-489-11	METAL OXIDE 27K 5% 3W F	
D601	A 8-719-032-39	DIODE DSA3A4-F3					
D602	A 8-719-032-39	DIODE DSA3A4-F3					
D603	A 8-719-032-39	DIODE DSA3A4-F3					
D604	A 8-719-032-39	DIODE DSA3A4-F3					
D605	8-719-971-65	DIODE RGP15J-6040					

G

The components identified by shading and mark **Δ** are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R603	1-216-491-11	METAL OXIDE 56K 5% 3W	F
R604	1-249-418-11	CARBON 1.2K 5% 1/4W	
R605	1-249-415-11	CARBON 680 5% 1/4W	
R606	1-207-642-00	WIREWOUND 0.15 10% 3W	F
R607	1-249-423-11	CARBON 3.3K 5% 1/4W	
R608	1-249-426-11	CARBON 5.6K 5% 1/4W	
R609	1-249-426-11	CARBON 5.6K 5% 1/4W	
R610	1-249-421-11	CARBON 2.2K 5% 1/4W	
R611	1-249-417-11	CARBON 1K 5% 1/4W	
R612	1-249-404-00	CARBON 82 5% 1/4W	
R613	1-249-419-11	CARBON 1.5K 5% 1/4W	
R614	1-249-385-11	CARBON 2.2 5% 1/4W	F
R615	1-218-265-11	METAL 8.2M 5% 1W	
R616	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R617	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R618	1-249-443-11	CARBON 0.47 5% 1/4W	F
R619	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R620	1-249-443-11	CARBON 0.47 5% 1/4W	F
R621	1-215-877-11	METAL OXIDE 22K 5% 1W	F
R622	1-247-700-11	CARBON 100 5% 1/4W	
R623	1-249-417-11	CARBON 1K 5% 1/4W	
R624	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R625	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R626	1-247-895-00	CARBON 470K 5% 1/4W	
R631	1-247-807-31	CARBON 100 5% 1/4W	
R1602	1-215-869-11	METAL OXIDE 1K 5% 1W	F
R1603	1-202-846-00	SOLID 470K 20% 1/2W	

<RELAY>

RY601Δ 1-515-738-11 RELAY

<TRANSFORMER>

T601 Δ 1-426-716-11 TRANSFORMER, LINE FILTER (LFT)  
T602 Δ 1-426-716-11 TRANSFORMER, LINE FILTER (LFT)  
T603 1-427-885-11 TRANSFORMER, CONVERTER (SRT)

<THERMISTOR>

THP601Δ 1-808-059-32 THERMISTOR, POSITIVE

<VARISTOR>

VDR601Δ 1-809-942-71 VARISTOR

\*\*\*\*\*